## Randolph County Community Health Assessment

## 2022 Final Report

# Presented by Randolph County Public Health and Randolph Health





#### Acknowledgements

The Community Health Assessment Executive Committee which is comprised of individuals from Randolph County Public Health and Randolph Health would like to thank the members of the Community Health Assessment Advisory Committee for their assistance in the development of the 2022 Community Health Assessment. The members of the Advisory Committee include:

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#### **Executive Summary**

#### Introduction

Every three years Randolph County Public Health (RCPH), with support from Randolph Health conducts a Community Health Assessment (CHA). Additional assistance is provided by community organizations, businesses, agencies, and individuals with an interest in improving the health status of Randolph County residents.

#### The purpose of the Community Health Assessment is to:

- Evaluate the health status of each county in relation to the State's health objectives as well as peer counties;
- Identify and prioritize health issues that may pose a threat to the health of the community;
- Develop strategies to address priority community health concerns.

As applicable, Randolph County statistics have been compared with state statistics as well as peer counties. To begin the peer county selection process, the community health assessment executive committee created a list of potential peer counties to use in comparison to Randolph County. The list included Chatham, Craven, Davidson, Harnett, Johnston, and Montgomery counties. In order to narrow down the number of counties to use for comparison, the committee identified key indicators to compare counties. These indicators included education, occupation, population demographics, socioeconomic status, transportation, and health insurance status. Once the data was collected for each indicator, the committee looked at which counties were most similar to Randolph County. The list was reduced to four peer counties; Craven, Davidson, Johnston, and Montgomery.

Figure 1: Peer County Selection Process

### Peer County Selection Process

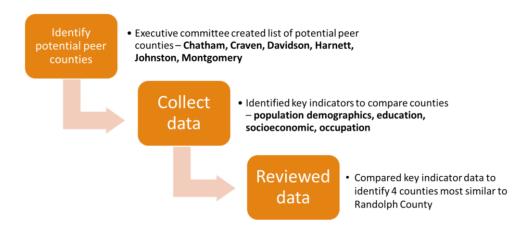


Figure 2: North Carolina map highlighting peer counties

#### **Peer Counties Selected**



#### **Social Determinants of Health**

For the 2022 community health assessment, the executive committee wanted to incorporate a health equity lens by addressing the social determinants of health. Healthy People 2030 defines social determinants of health as "the conditions in the environment where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risks".<sup>1</sup>

**Social determinants of health are grouped into 5 categories** and each has an impact on the health status of the individual and their community overall. Throughout this report, data on the social determinants of health are included for Randolph County.

Figure 3: Social Determinants of Health

#### Social Determinants of Health



Source: Healthy People 2030

## Examples of Social Determinants of Health that have an impact on the health and well-being of a person's life.



#### **Economic Stability**

- Unemployment
- Working Out of Town
- Wage Gap
- Living Wage for Community
- Average Household Debt
- Home Ownership

## Education Access & Quality

- Graduation Rates
- Suspension Rates
- Higher Education Access
- Reading & Math Proficiency
- Early Childhood Education
- School System Population
- Specialty Education Programs



## Healthcare Access & Quality

- Medical Providers
- Health Professional Shortage Areas- Primary Care (HPSA) Score
- Access/Barriers
- Hospital Services
- Health Literacy
- Behavioral Health Providers



## Neighborhood & Built Environment

- Transportation
- Walkability
- Housing Status
- Housing Quality
- Access to Recreation
- Food Security/Access to Healthy Food
- Air Quality
- Population Density
- Internet Connectivity

## **\*\*\***

#### Social & Community Context

- Crime Rates
- Department of Social Services
- Local Law Enforcement
- Faith Community
- Community Centers
- Support Groups
- Incarceration
- Traffic Safety

#### Mission of Randolph County Public Health

To preserve, protect, and improve the health of the community. This mission is accomplished through the collection and dissemination of health information, education, and service programs aimed at the prevention of disease, protection of the environment, and improvement of the quality of life for our citizens.

#### Theoretical Framework and Model

The Social-Ecological Model was used to guide this process. The Social-Ecological Model addresses a whole community perspective by considering individuals, relationships, organizations, the community, and public policy.<sup>2</sup> All these factors interplay and can have an effect on individuals and the community as a whole. To be able to competently and successfully address the health issues impacting the residents of Randolph County we need multiple partners from different sectors to come together to work towards a common cause to create sustainable change to assist the public. Throughout this process the executive committee ensured that partners and other community members had a voice in conducting the assessment.

Figure 4: Theoretical Framework Model



Source: ResearchGate

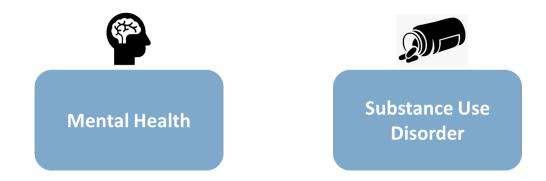
The assessment executive committee also used the North Carolina Division of Public Health's eight-phase community health assessment process as a guide to conduct the process.

- 1. Establish a community health assessment advisory committee: The executive committee sent an email invitation to community partners inviting them to serve on the community health assessment advisory committee.
- 2. Collect secondary data: Social determinants of health and other data were collected from county and state-level sources such as the North Carolina State Center for Health Statistics, North Carolina Department of Health and Human Services, Centers for Disease Control and Prevention, United States Census, etc.
- **3. Collect primary data:** Key informant, community opinion surveys, and a focus group were utilized to collect data.
- **4. Analyze and interpret survey data:** The executive committee held meetings to present and discuss findings with members of the advisory committee.
- **5. Determine health priorities:** The advisory committee members met to identify leading community health concerns in Randolph County. A nominal group technique was used to identify priority areas to focus on for the next three years.
- 6. Create the community health assessment document.
- **7. Disseminate final document:** Randolph County Public Health and Randolph Health posted the final document on their websites and social media outlets. The report was also printed for distribution throughout the county and to community partners.
- **8. Develop community health improvement plans:** Utilize Results-Based Accountability to create the community health improvement plans.

#### **Priority Needs**

#### **2022 Identified Priority Needs**

The top two priorities identified through the community health assessment process.



#### **2019 Identified Priority Needs**

The following were identified as the **top three priorities** in the previous community health assessment.



#### **Next Steps**

Transition to use of Clear Impact Scorecard and Results-Based Accountability.

Since the 2019 Community Health Assessment, health departments must have training in both Results-Based Accountability and Clear Impact Scorecard for documentation of the next cycle's community health assessment submission. Results-Based Accountability is a disciplined way of thinking and taking action that can be used to improve the quality of life in communities, cities, states, countries, and nations. It can also be used to improve the performance of programs, agencies, and service systems. The Results-Based Accountability framework will be utilized in the development and implementation of the Community Health Improvement Plans (CHIPs).

Clear Impact Scorecard is a performance measurement and population accountability tracking tool designed to use the principles of Results-Based Accountability to help turn data into tangible results. It works by allowing for easy data input, tracking trends over time, and assisting in collaboration between partners and involved parties.<sup>3</sup>

The 2022 Community Health Assessment will be submitted on the Clear Impact Scorecard dashboard. In addition, copies of the full report will be submitted in PDF format.

The final report will be posted to the websites of Randolph County Public Health and Randolph Health, as well as social media platforms. A presentation will be made to the Board of Health and the Randolph Health Board. Once developed, the community health improvement plans will be submitted to the state via Clear Impact Scorecard.

#### Glossary (acronyms)

AC – Advisory Committee

BMI – Body mass index

BOH - Board of Health

CDC – Centers for Disease Control & Prevention

CHA – Community Health Assessment

CHIPs – Community Health Improvement Plans

**COP** – Community Opinion Survey

EC – Executive Committee

HNC 2030 – Healthy North Carolina 2030

HPSA Score – Health Professional Shortage Areas- Primary Care

KI – Key Informant

NCDHHS – North Carolina Department of Health & Human Services

NCDPH - North Carolina Division of Public Health

OUD – Opioid Use Disorder

RBA – Results-Based Accountability

RCPH – Randolph County Public Health

RH – Randolph Health

SDOH – Social Determinants of Health

SEM- Social Ecological Model

STD/STI – Sexually Transmitted Disease/Infection

SUD – Substance Use Disorder

#### **Icons**

Throughout this report, these icons represent several categories of data/feedback collected from the community for the purpose of the community health assessment report. These categories include focus group, key informant, and community opinion survey.

المراجعة الم	Focus Group
9	Key Informant
Ê	Community Opinion Survey

#### **Public Health Definitions**

Definitions of commonly used public health terms. This section is meant to assist the reader in understanding the terms used throughout this report.

Access to care: Timely use of personal health services to achieve the best possible health outcomes.<sup>5</sup>

**Built environment:** The physical makeup of where we live, learn, work, and play - our homes, schools, businesses, streets and sidewalks, open spaces, and transportation options.<sup>6</sup>

**Community**: A group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings.<sup>7</sup>

Cost burdened: When homeowners spend more than 30% of their income on rent, mortgage, and other housing needs.<sup>8</sup>

**Data scrubbing:** The procedure of modifying or removing incomplete, incorrect, inaccurately formatted, or repeated data in a database.<sup>9</sup>

**Food insecurity:** The lack of access, at times, to enough food for an active, healthy life. <sup>10</sup>

**Health disparities:** Differences in health status and outcomes between groups based on characteristics like race, ethnicity, gender, geography, educational attainment, and income. <sup>11</sup>

**Health professional shortage areas score:** Scores are developed for use by the National Health Service Corps to determine priorities for the assignment of clinicians. Scores range from 1 to 25 for primary care and mental health, and 1 to 26 for dental health. The higher the score, the greater the priority. <sup>12</sup>

**Health equity:** The opportunity for all people to attain the highest level of personal health regardless of demographic characteristics.<sup>11</sup>

**Housing instability:** Having difficulty paying rent, spending more than 50% of household income on housing, having frequent moves, living in overcrowded conditions, or doubling up with friends and relatives. <sup>13</sup>

**Incidence rate:** The occurrence of new cases of disease or injury in a population over a specified period of time.<sup>14</sup>

**Key informant:** Individuals who have increased knowledge about a particular topic or aspect of the community.<sup>15</sup>

Margin of error: The amount by which a set of data might not be accurate.<sup>16</sup>

Morbidity: Rate of disease or diseases. 14

**Mortality:** Rate of death.<sup>14</sup>

**Population density:** A measure of the average population per square mile of land. <sup>17</sup>

**Prevalence:** The proportion of persons in a population who have a particular disease or attribute at a specified point in time or over a specified period of time (sometimes referred to as prevalence rate).<sup>14</sup>

**Qualitative data:** Non-numerical data that can be observed and recorded. <sup>18</sup>

Quantitative data: Numerical data calculated and collected through established methods. 18

**Rate:** A basic measure of disease frequency, which considers the number of cases or deaths and the population size. (For example, if a cancer incidence rate is 500 per 100,000, it means that 500 new cases of cancer were diagnosed for every 100,000 people).<sup>19</sup>

#### **Community Health Assessment Process**

Every three to four years, local health departments in North Carolina are responsible for conducting a community health assessment for their county or service area. Preparing the assessment includes:

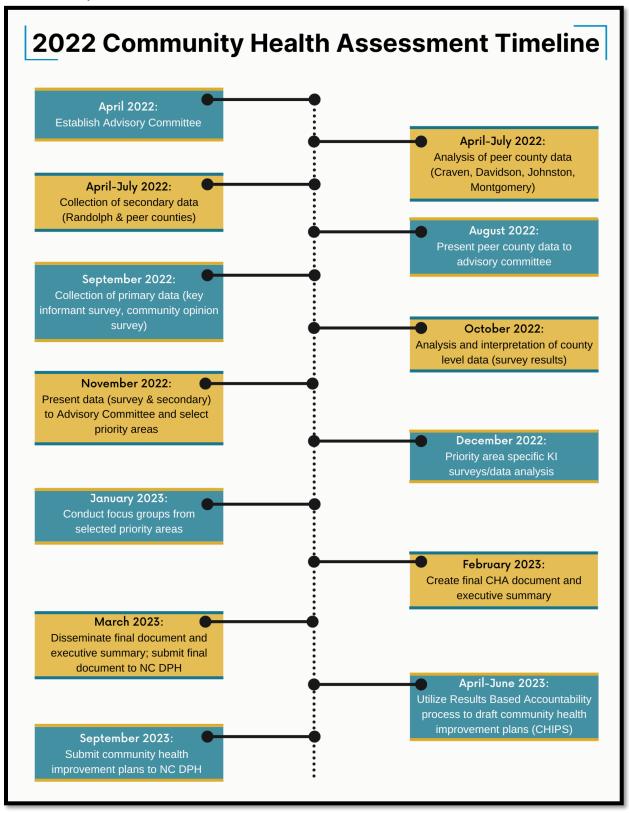
- Convening community partners;
- Assembling data on health outcomes, resources, and needs;
- Seeking community member and key stakeholder input and experiences.

The purpose of the community health assessment is to:

- Evaluate the health status of each county in relation to the State's health objectives as well as peer counties.
- Identify and prioritize health issues that may pose a threat to the health of the community.
- Develop strategies to address priority community health concerns.

In Randolph County, this process involves assembling an advisory committee which includes key community stakeholders. The committee is responsible for collecting and analyzing data and using the information to select the county's top priority needs. The advisory committee convened quarterly, beginning in April 2022 and concluding in January 2023. The committee met in person and virtually on four occasions. The committee reviewed primary and secondary data on a variety of topics that influence or impact an individual's health. Using this data, the committee selected two priority needs.

Figure 5: Community Health Assessment Timeline



#### Methodology

Randolph County Public Health and Randolph Health incorporated a mixed methods approach in data collection to gain a broad understanding of the health of Randolph County residents at the time of the community health assessment. These methods included quantitative and qualitative data collection in the form of surveys and a focus group.

#### **Secondary Data Collection**

Secondary data collection and analysis was collected first by the executive committee and took place from April to December 2022. Secondary data are collected by another entity or for another purpose. Secondary data offers information on issues affecting the community. Using a list of key indicators of various topics, the executive committee collected secondary data from a number of sources including the North Carolina State Center for Health Statistics, North Carolina Department of Health and Human Services, Centers for Disease Control and Prevention, United States Census Bureau, County Health Rankings, Behavioral Risk Factor Surveillance System (BRFSS), among others. Secondary data was also evaluated using leading causes of death for Randolph County and the four chosen peer counties, as well as social determinants of health.

#### **Primary Data Collection**

Primary data collection is central to the assessment process as it includes the voice of the community in the process. Data collected from community members or key informants can fill knowledge gaps within traditional sources. Perspectives shared by community members may highlight serious issues or concerns missed by large datasets. Primary data is collected first-hand through surveys, listening sessions, interviews, and observations. Primary data collected is incorporated into various portions of the report, but can also be found in Appendix B: Primary Data Findings.

#### **Community Survey**

A total of 520 Randolph County residents completed the community opinion survey. The executive committee set a goal to have at least 1,000 surveys completed by adults living in Randolph County. The survey was broadly advertised and distributed to the general population of Randolph County via digital platforms including websites, social media, and email. Additionally, the survey was available to be completed by paper and pen at specific community sites including Randolph County Senior Adults, libraries, and churches.

**SAMPLING FRAME:** Respondents were eligible to participate in the survey if they were residents of Randolph County. The survey is designed to target adults. The population of Randolph County is estimated to be 144,171 with approximately 22% (~31,717) of residents to be under the age of 18. Therefore, approximately 112,454 residents were targeted to participate in the survey.

**SAMPLING METHODS:** The executive committee decided to use convenience sampling to reach as many residents as possible. To ensure the voices of sub-populations were included, locations to promote the community health assessment were identified based on zip code, income level, age, gender, race, ethnicity, and education level. Examples included programs serving senior citizens, libraries, medical offices, as well as churches.

**SURVEY MODE:** The survey was available to the public for two weeks in September 2022. Randolph County Public Health, Randolph Health, and community partners distributed surveys through email listservs, social media, organizations, events, and different physical community locations. Additionally, flyers with a QR code to a digital version were posted in these locations. Surveys were available in English and Spanish. Surveys were self-administered and anonymous.

**SAMPLE SIZE:** The advisory committee successfully sampled 0.46% (n=520) of the adult population (n=112,454).

**MARGIN OF ERROR AND CONFIDENCE LEVEL:** Because the sample size was 520 respondents, there is a 4.29% margin of error that the probability of the sample accurately reflects the adult population of Randolph County. This means there is a 95% likelihood (give or take 4.29%) that the entire adult population of Randolph County would respond similarly to these survey questions.

Survey Strengths	Survey Limitations
<ul> <li>Offered in English and Spanish</li> </ul>	<ul> <li>Short survey timeframe</li> </ul>
<ul> <li>QR code used for digital access</li> </ul>	<ul> <li>Bot activity affected digital survey</li> </ul>
<ul> <li>Targeted distribution of paper surveys</li> </ul>	completion. As a result, 75% of
<ul> <li>Abbreviated survey</li> </ul>	digital survey responses were removed
•	from analysis.

#### **Key Informant Data**

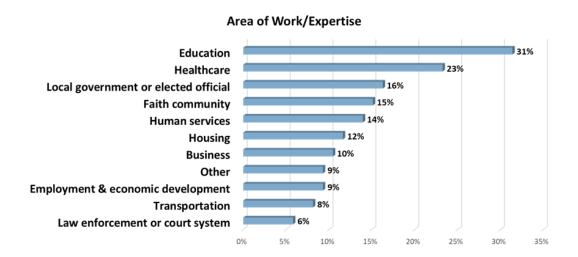
Key informants are individuals who have increased knowledge about a particular topic or aspect of the community. <sup>15</sup> Respondents to the key informant survey indicate most common uses of the community health assessment includes program planning, strategic planning, budget allocation decisions, and advocacy. Using the results of the community health assessment in this way produces collective impact on the identified needs.

Key informants were selected through three key groups: Community Health Assessment Advisory Committee, Juvenile Crime Prevention Council, and Safe Kids Randolph County. Using a snowball sampling technique for means of distributing the key informant survey, members of these groups were asked to share the survey link with other key informants within the county. It should be noted that key informants were not required to be residents in Randolph County to complete the survey. Similar to communities across the state, many professionals commute to work which includes some of the key informants represented in respondent pool.

Eighty-eight key informants completed a digital or paper survey. Key informants included business professionals, traditional and non-traditional community leaders, as well as elected officials who are engaged in meeting the needs of the community and in a position to do so. The survey asked key informants to rate quality of life, health, physical environment, social, and economic issues affecting residents using a Likert scale.

Key Informant – Individuals
who have increased
knowledge about a
particular topic or aspect of
the community.

The graph below reflects industries represented by the respondents to the key informant survey. Graph 1: Key Informant Respondents' Areas of Work/Expertise (2022)



In addition to a general key informant survey, a priority specific survey was distributed to key informants on one of the identified priority needs – mental health. The survey asked several questions including challenges, assets, and promising approaches to address this issue. Survey results were used to generate discussion among a focus group consisting of key informants.

Substance use disorders was the other identified priority by the advisory committee. However, there was an established workgroup in the process of building a community health improvement plan. As a result, a priority specific survey and focus group were not conducted for substance use disorders.

Survey Strengths	Survey Limitations
<ul> <li>Respondents have close connections to community</li> <li>Included detailed questions regarding community issues</li> <li>Snowball method to extend reach of survey</li> </ul>	<ul> <li>A portion of printed key informant surveys were missing a segment of questions. This limited information in select categories.</li> </ul>

#### **Focus Group**

Based on the 2022 priority areas selected by the advisory committee which are mental health and substance use disorder, a focus group was held to explore this topic more in-depth. The executive committee identified key informants with knowledge or expertise in mental health.

Key informants that participated in the focus group consisted of local stakeholders and community partners. They were asked a series of questions that captured perceptions and viewpoints related to how mental health is addressed in Randolph County. The focus group format and questions are included in Appendix A: Community Health Assessment Tools.

Randolph County Public Health leads the Randolph County Opioid – Drug Community Collaborative. As part of the Collaborative, three workgroups were formed to address substance use disorders within the county. The

workgroups developed include prevention, harm reduction, and connect to care. As a result of the efforts by the workgroups in regards to substance use disorder, the executive committee did not feel a focus group was needed for this topic.

#### **Survey Limitations**

The key informant survey had over representation of some areas of work/expertise. As shown in the chart above, 31% of responses came from the education sector. Due to a printing error, a portion of the key informant surveys that were distributed in paper form had missing pages leading to missing questions.

The community opinion survey was conducted twice due to bot activity in September 2022. In the first round of survey completion, a total of 1,362 digital surveys were completed. After a process called data scrubbing, where the team removes incomplete, incorrect or repeated data, there were only 403 survey responses remaining. The executive committee decided to relaunch the survey once more to get additional community responses. The second round of surveys included both digital (QR code) & paper. At completion of the second round, a total of 520 surveys were collected.

#### **Priority Area Selection**

In November 2022, advisory committee members met to identify the leading community health concerns in Randolph County. During the meeting, members reviewed the 20 top priority areas identified by county residents through the community opinion survey. The committee was asked to use information provided by community responses to the survey, as well as their understanding of local / state data presented by the executive committee.

Table 1: Priority Selection Topics

2022 Priority Selection Topics			
Quality of Life		Health	
Financial Security	Safe Neighborhoods	Injury Prevention	Violence Prevention
Transportation	Healthy Food	HIV/STD Prevention	Access to Care
Housing	Urban Planning	Healthy Pregnancy	Mental Health
Education	Green Spaces	Healthy Environment	Chronic Disease Prevention
Health Insurance	Early/Middle Childhood	Substance Use Disorder	Infectious Disease

To start the selection process, these 20 topics were written on a large board standing on an easel. The advisory committee members were given color coding dots and instructed to vote on priority topics from the list by placing a dot next to the topic they think is most important for Randolph County to focus on.

Voting, Round 1: Out of the 20 topics, the committee was asked to vote on five they felt were most important to concentrate on. They used dots to cast their vote on the board.

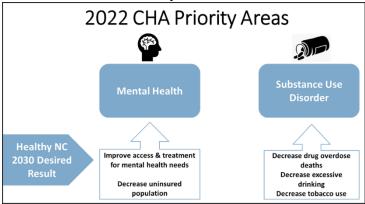
Table 2: Top 5 Topics Selected

Mental Health (23 votes)	Substance Use Disorder (17 votes)
Education (14 votes)	Healthy Food (11 votes)
Access to care (11 votes)	

Voting, Round 2: From the top five topics selected in round one, members were asked to vote on two from that list.

Voting Conclusion: The two priority areas selected were mental health and substance use disorder. Using Healthy NC 2030, the "desired results" will be the focus of the community health improvement plans over the next three years.

Figure 6: Community Health Assessment 2022 Priority Areas

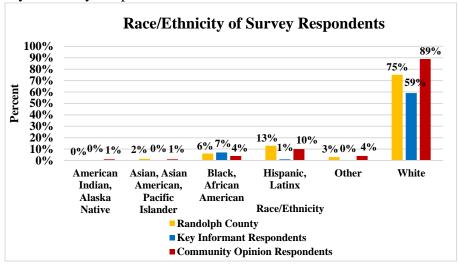


#### **Summary of Respondent Demographics**

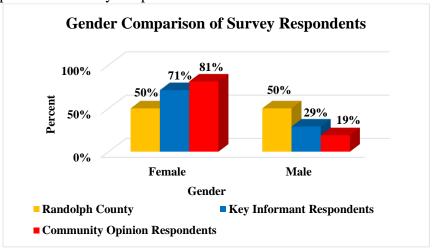
Survey participants were asked to provide demographic information by selecting appropriate responses from lists describing categories of age, gender, race, and ethnicity. This demographic information was collected in order to assess how well the survey participants represented the general population of Randolph County. All responses were completely anonymous.

The responses to demographic questions for the surveys were primarily from the white, female population. The majority of those that answered the other demographic questions, were ages 25-44, had at least a high school diploma, were employed full-time, and had a household income ranging between \$50,000 - \$74,999. Thirty-nine percent of respondents live in Asheboro.

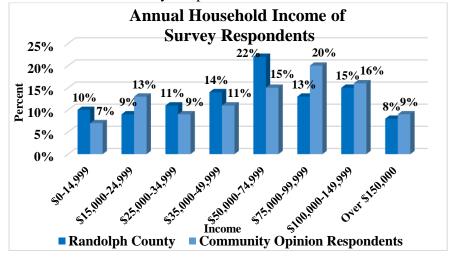
Graph 2: Race/Ethnicity of Survey Respondents



Graph 3: Gender Comparison of Survey Respondents



Graph 4: Annual Household Income of Survey Respondents



#### **Community Profile**

#### **County Size**

Randolph County is located in the heart of North Carolina and is 782.3 square miles of land area. It's the 11th largest county in North Carolina.<sup>21</sup> Due to its central location in the state, the county serves as a thoroughfare for thousands of cars annually.

Municipalities in Randolph County include: Archdale, Asheboro, Franklinville, Liberty, Ramseur, Randleman, Seagrove, Staley and Trinity. Asheboro is the county seat. Randolph County is bordered by six other counties which are Chatham, Montgomery, Moore, Guilford, Alamance, and Davidson.

Randolph County is home to the North Carolina State Zoological Park and Uwharrie Mountains, one of the world's oldest mountain ranges. Other major attractions include the Richard Petty Museum and North Carolina Pottery Center.

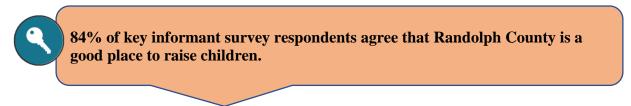


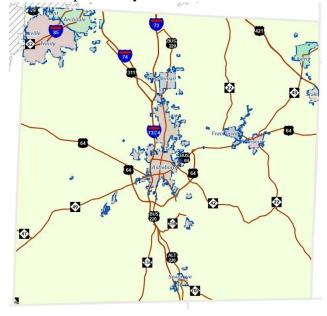
Figure 7: Map of North Carolina – Randolph County



Source: North Carolina County Map, Sun Catcher Studio

Figure 8: Map of Major Roadways/Highways of Randolph County

- I-73/74 (US220)
- US 421
- US 311 Bypass
- US 64
- NC 49

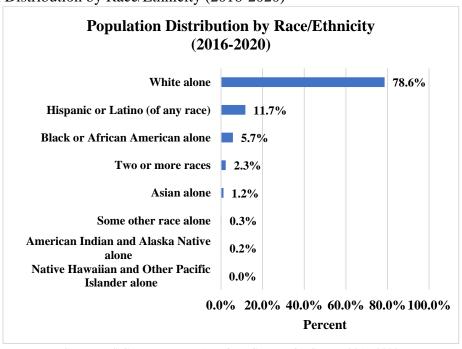


**Source: GIS Randolph County** 

#### **Population Demographics**

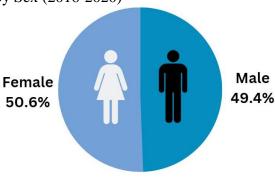
The following data in this section shows a breakout of the population in Randolph County by race/ethnicity, sex, and age groups. The United States Census Bureau reports the total population in Randolph County between 2016-2020 is 143,460.

Graph 5: Population Distribution by Race/Ethnicity (2016-2020)



Source: US Census Bureau, American Community Survey 2016-2020

Graph 6: Population Distribution by Sex (2016-2020)



Source: US Census Bureau, American Community Survey 2016-2020

Reporting from the United States Census Bureau shows between the years of 2016-2020, Randolph County had a higher population in the age groups of 45-59 years old. The second highest population groups were in the age range of 5-19 years old.



76% of community opinion survey respondents agree that Randolph County is a good place to grow old.

Table 3: Population Distribution by Age Groups (2016-2020)

il by Age Groups (2010	2020)
Age Range	2016-2020
Under 5 years	5.6%
5 to 9 years	6.2%
10 to 14 years	6.6%
15 to 19 years	6.5%
20 to 24 years	5.7%
25 to 29 years	6.2%
30 to 34 years	5.6%
35 to 39 years	5.8%
40 to 44 years	5.9%
45 to 49 years	7.1%
50 to 54 years	7.3%
55 to 59 years	7.7%
60 to 64 years	6.3%
65 to 69 years	5.7%
70 to 74 years	4.9%
75 to 79 years	2.9%
80 to 84 years	2.3%
85 years and over	2.0%

Source: US Census Bureau, American Community Survey 2016-2020

The following sections are about education, modes of transportation, occupational industries, healthcare coverage, disability, housing, and living wage in Randolph County.

Between the years of 2016-2020, 40% of residents ages 18-24 have some college or associate's degree, and 4.6% have a bachelor's or higher. People from the ages of 25 years and older, 34.4% of them have a high school education and 11.5% have a bachelor's degree.

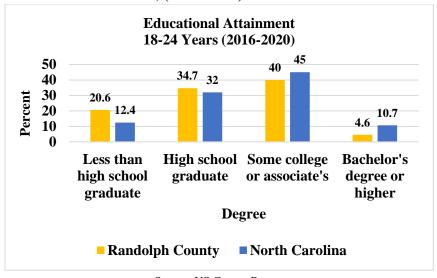
Table 4: Educational Attainment in Randolph County (2016-2020)

Population 18 to 24 years	Percentage	Population 25 years and over	Percentage
Less than high school graduate	20.6 %	Less than 9th grade	6.1%
High school graduate (includes equivalency)	34.7%	9th to 12th grade, no diploma	11%
Some college or associate's degree	40%	High school graduate (includes equivalency)	34.4%
Bachelor's degree or higher	4.6%	Some college, no degree	22.4%
		Associate's degree	10%
		Bachelor's degree	11.5%
		Graduate or professional degree	4.6%

Source: US Census Bureau, American Community Survey 2016-2020

The chart below compare educational attainment between Randolph County and North Carolina in the years of 2016-2020. For ages 18-24 years old, Randolph County and North Carolina are most similar in the category high school graduate with only a 2.7% difference between them.

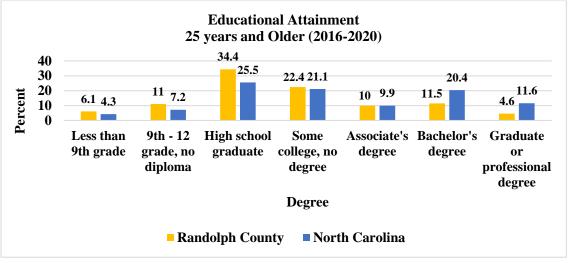
Graph 7: Educational Attainment 18-24 Years, (2016-2020)



Source: US Census Bureau

For ages 25 years and older, 11.5% of Randolph County residents have a bachelor's degree, compared to 20.4% of North Carolina residents.

Graph 8: Educational Attainment 25 years and Older (2016-2020)



Source: Source: US Census Bureau

Transportation is a social determinant of health that affects every part of an individual's well-being. Transportation allows a person to have access to employment, educational opportunities, and health care services. In the reporting period of 2016-2020 from the United States Census Bureau, 83.5% of Randolph County workers drive alone in a car, truck, or van to work.

Table 5: Modes of Commuting to Work in Randolph County 2016-2020

Mode of Transportation to Work	Percentage
Car, truck, or van drove alone	83.5%
Car, truck, or van carpooled	10.7%
Worked from home	4.0%
Other means	1.1%
Public transportation (excluding taxicab)	<1%
Walked	<1%
Mean travel time to work (minutes)	23.8 minutes

Source: US Census Bureau, American Community Survey 2016-2020

Table 6: Occupational Industries Civilians Employed 16 years and Over (2016-2020)

Occupation	Percentage
Management, business, science, and	29%
arts occupations	27/0
Service occupations	16.1%
Sales and office occupations	21.3%
Natural resources, construction, and	9.9%
maintenance occupations	J.J/0
Production, transportation, and	23.8%
material moving occupations	23.8%

Source: US Census Bureau, American Community Survey 2016-2020

Table 7: Healthcare Coverage for Randolph County (2016-2020)

Health Care Coverage	Percentage
With Health Insurance	86.9%
Private Insurance	57.4%
Public Insurance	39.9%
No Health Insurance	13.1%

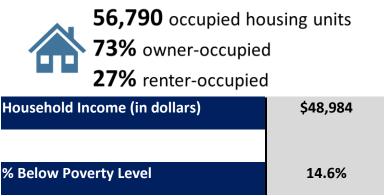
Source: US Census Bureau, American Community Survey 2016-2020

Table 8: Population with a Disability by Age in Randolph County (2016-2020)

Age Group	Percentage	
Under 5 years old	1.4%	
5 to 17 years old	9.0%	
18 to 34 years	10.9%	
35 to 64 years	17.8%	
65 to 74 years	26.2%	
75 years and over	49.2%	

Source: US Census Bureau, American Community Survey 2016-2020

Figure 9: Housing Statistics for Randolph County (2016-2020)



Source: US Census Bureau, American Community Survey 2016-2020

#### **Living Wage in Randolph County**

The Our Money Needs Calculator from the United Way indicates what a family/individual needs to earn to make ends meet. The chart below shows examples from Our Money Needs Calculator of how much income three example families residing in Randolph County would need to earn to make ends meet.

Table 9: Example of Living Wage Calculator

Example Families	Annual Family Income	Monthly Family Income
2 Adults 2 Children	\$51,569	\$4,297
1 Adult	\$20,271	\$1,689
2 Adults	\$33,969	\$2,831

Source: United Way NC

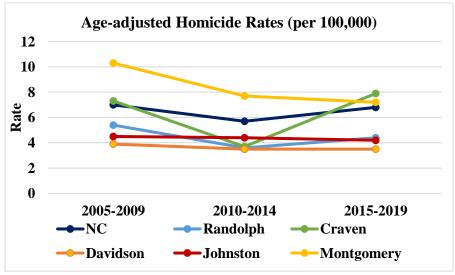
#### **Peer County Comparison**

This section contains data comparing Randolph County and its peer counties which are Craven, Davidson, Johnston, and Montgomery counties. The indicators presented for these counties are age-adjusted rates for death, communicable disease, food-borne illness, chronic diseases, and maternal and child health. These indicators reflect the overall status of a community.

#### **Age-adjusted Rates**

Age-adjusted homicide rates for Randolph County, its peer counties, and North Carolina for the years 2005-2019 are presented in the graph below. For Randolph County, the homicide rate was highest between 2005-2009. Davidson and Johnston were the only two peer counties to have lower rates than Randolph County during 2015-2019.

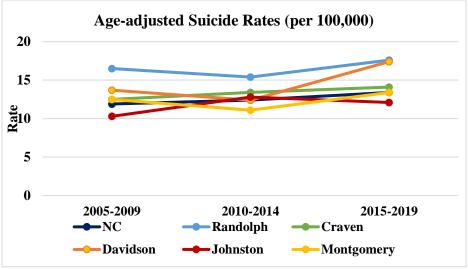
Graph 9: Age-adjusted Homicide Rates



Source: NC State Center for Health Statistics

Age-adjusted suicide rates for Randolph County, its peer counties, and North Carolina for the years 2005-2019 are represented in the graph below. In Randolph County, the suicide rates remained higher than its peer counties and North Carolina during these years.

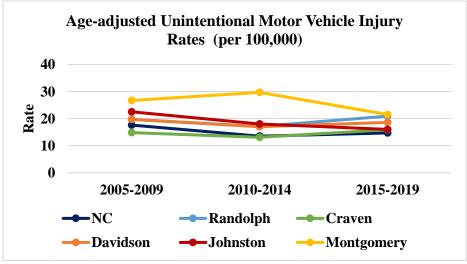
Graph 10: Age-adjusted Suicide Rates



Source: NC State Center for Health Statistics

Age-adjusted unintentional motor vehicle injury rates for Randolph County, its peer counties, and North Carolina for the years 2005-2019 are presented in the graph below.

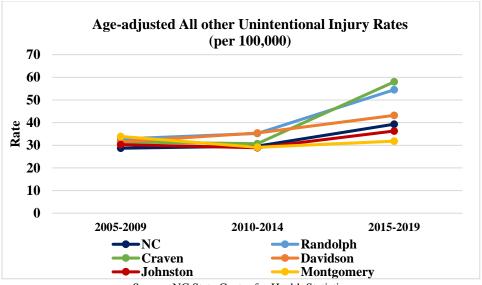
Graph 11: Age-adjusted Unintentional Motor Vehicle Injury Rates



Source: NC State Center for Health Statistics

Age-adjusted all other unintentional injury rates for Randolph County, its peer counites, and North Carolina for the years 2005-2019 are presented in the graph below. Besides Craven County, Randolph County had the highest rates between 2015-2019 for all other unintentional injuries. All other unintentional injuries include drownings, falls, and poisonings.

Graph 12: Age-adjusted All Other Unintentional Injury Rates



Source: NC State Center for Health Statistics

#### **Communicable Disease**

Communicable diseases are illnesses that spread from one person to another, from an animal to a person, from a surface, or a food.<sup>22</sup> Some illnesses can be mild while others can be deadly.

These diseases can be transmitted in many ways:

- direct contact with a sick person;
- respiratory droplet spread from a sick person sneezing or coughing;
- contact with blood or other body fluids;
- breathing in viruses or bacteria in the air;
- contact with a contaminated surface or object;
- bites from insects or animals that can transmit the disease;
- ingestion of contaminated food or water.<sup>22</sup>

#### COVID-19

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. The virus that causes SARS-CoV-2 spread throughout the world infecting millions. According to the World Health Organization, there have been over six million people globally die of the virus. In the United States, there have been over one million deaths due to COVID-19.

Currently, there are control measures to combat the spread and infection of the COVID-19 virus such as quarantine and isolation, vaccines, face masks, testing, and treatments.

Table 10: Reported Cases of COVID-19 in Randolph County (2019-2022)

	2019-2020	2020-2021	2021-2022
COVID-19 Confirmed cases	1,318	9,219	15,483
COVID-19 probable Cases	0	4,743	6,829
*COVID-19 Deaths	-	176	185

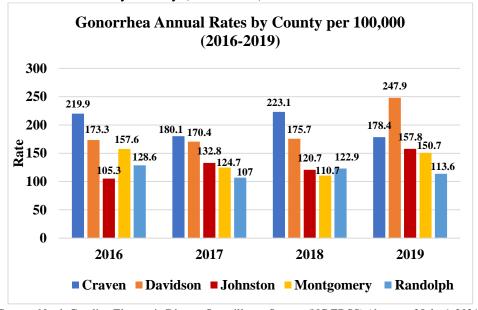
Source: Randolph County Public Health Annual Report FY 2021-2022

\*COVID-19 was added to the list of NC reportable diseases during FY 2019-2020.

#### **Other Communicable Diseases**

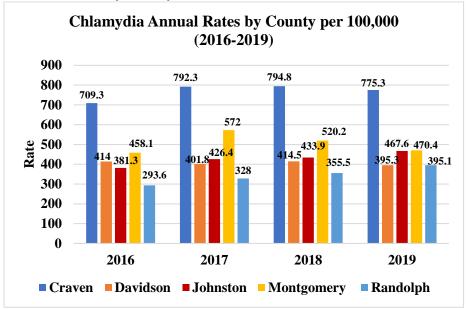
Communicable diseases like gonorrhea, chlamydia, HIV, AIDS, syphilis, hepatitis B and C are sexually transmitted infections. Hepatitis A is spread when a person acquires the virus through personal contact with an infected person or through eating contaminated food or beverages. The spread of these diseases in the community is a major public health issue.<sup>25</sup> Prevention is key to reducing spread of the disease. Offering individuals and the community education, assistance, and resources will help them lead healthier lives. Left untreated, these diseases can lead to serious health issues or even death. The next few graphs reflect incidence rates for sexually transmitted infections in Randolph County and its peer counties.

Graph 13: Gonorrhea Annual Rates by County (2016-2019)



Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of July 6, 2021)

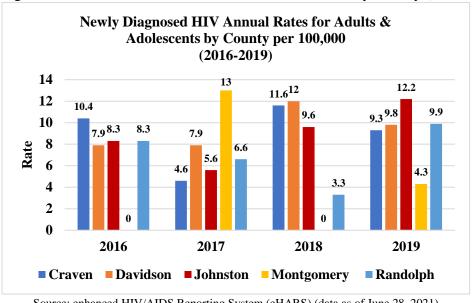
Graph 14: Chlamydia Annual Rates by County (2016-2019)



Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of July 6, 2021)

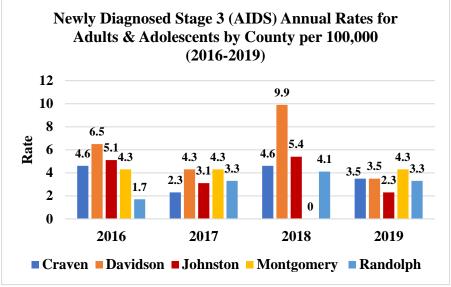
HIV infection includes all newly reported HIV-infected individuals by the year of first diagnosis regardless of the stage of infection (HIV or AIDS).

Graph 15: Newly Diagnosed HIV Annual Rates for Adults & Adolescents by County (2016-2019)



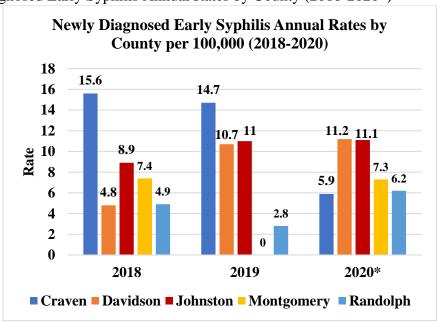
Source: enhanced HIV/AIDS Reporting System (eHARS) (data as of June 28, 2021)

Graph 16: Newly Diagnosed Stage 3 (AIDS) Annual Rates for Adults & Adolescents by County (2016-2019)



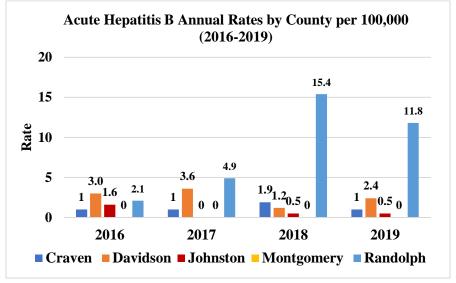
Source: HIV/AIDS Reporting System (eHARS) (data as of June 28, 2021)

Graph 17: Newly Diagnosed Early Syphilis Annual Rates by County (2018-2020\*)



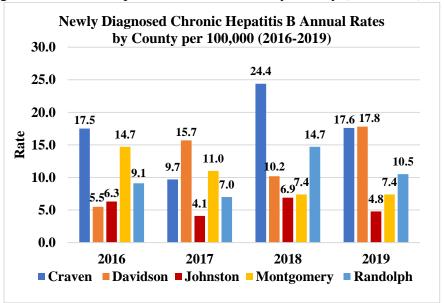
Source: North Carolina Electronic Disease Surveillance System (NCEDSS) (data as of July 6, 2021) \*2020 data should be treated with caution due to the reduced availability of testing caused by the COVID-19 pandemic.

Graph 18: Acute Hepatitis B Annual Rates by County (2016-2019)



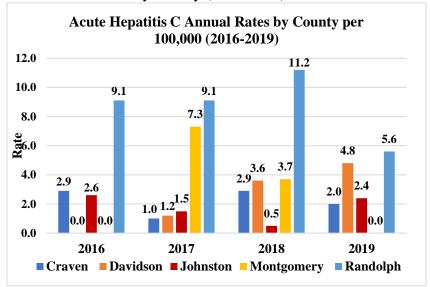
Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021)

Graph 19: Newly Diagnosed Chronic Hepatitis B Annual Rates by County (2016-2019)



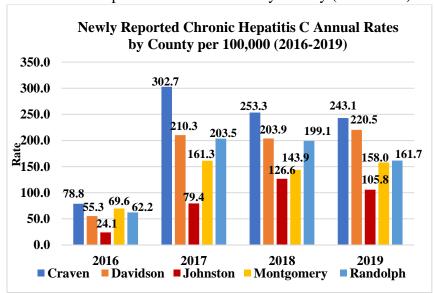
Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021)

Graph 20: Acute Hepatitis C Annual Rates by County (2016-2019)



Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021)

Graph 21: Newly Reported Chronic Hepatitis C Annual Rates by County (2016-2019)



Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021)

# **Foodborne Illness**

Foodborne illness is caused by eating contaminated food or beverages. Bacteria, viruses, or parasites can cause infections. Harmful toxins and chemicals can cause poisonings from the contaminated items. <sup>25</sup> In North Carolina, all foodborne illnesses are reportable. By law, operators of food and drink establishments must report to their local health department if they have reason to suspect an outbreak of foodborne illness in their customers; or employees or when they have reason to suspect that a food handler at the establishment has a foodborne disease or condition.

The chart below reflects occurrences of foodborne illness in Randolph County from 2018-2021. In 2020-2021, Randolph County reported 60 cases of campylobacter.

Table 11: Occurrence of Foodborne Illness in Randolph County (2018-2021)

Reported Cases of Foodborne Illness in Randolph County (2018-2021)					
<b>Foodborne Illness</b>	2018-2019	2019-2020	2020-2021		
Botulism	0	0	0		
Campylobacter	46	56	60		
Cyclosporiasis	0	9	0		
E. Coli	4	3	4		
Salmonellosis	51	42	33		
Shigellosis	3	2	3		
Vibrio	0	2	2		

Source: Randolph County Public Health Annual Report 2020-2021

### **Vector-Borne Diseases**

These are diseases that are caused when a vector (mosquitoes, ticks, and fleas) bites a human being which causes a disease. <sup>26</sup> The most common vector-borne disease in Randolph County from the years 2018-2021 is rocky mountain spotted fever.

Table 12: Reported Cases of Vector-Borne Disease in Randolph County (2018-2021)

Reported Cases of Vector-Borne Disease in Randolph County (2018-2021)			
Vector-borne Disease	2018-2019	2019-2020	2020-2021
Dengue Fever	1	0	0
Ehrlichiosis	6	2	3
Lyme Disease	3	4	4
Malaria	0	0	0
Rocky Mountain Spotted Fever	15	8	12
West Nile Virus	0	0	0
Zika	0	0	0

Source: Randolph County Public Health Annual Report 2020-2021

#### **Rabies**

Rabies is a vaccine preventable disease in humans, dogs, cats, and ferrets as well as some domestic livestock.<sup>27</sup> All mammals are susceptible to rabies and it is nearly always fatal. When humans have been exposed through contact with a potentially rabid animal, rabies can be prevented in humans with timely and appropriate treatment. In North Carolina, the disease most often occurs in wild animals especially skunks, raccoons, bats, and foxes. Rabies is present in the raccoon population in virtually every county in North Carolina. The charts below reflect the incidence of rabies in Randolph County and its peer counites.

Table 13: Vector and Number of Rabies Cases in Randolph County (2016-2021)

Ve	Vector and Number of Rabies Cases in Randolph County							
	(2016-2021)							
Animal	2016   2017   2018   2019   2020   2021   Total							
							Cases	
Bat	0	0	0	1	0	0	1	
Cat	0	0	0	3	0	0	3	
Dog	0	0	0	0	0	0	0	
Fox	1	6	6	0	1	2	16	
Raccoon	0	2	3	3	1	0	9	
Skunk	2	0	0	1	3	1	7	
Coyote	0	0	0	0	0	0	0	

Source: Randolph County Public Health Annual Report 2020-2021

Table 14: Total Rabies Cases by County (2016-2021)

	Total Rabies Cases by County						
(2016-2021)							
County	County 2016 2017 2018 2019 2020 2021 Total						
							Cases
Craven	1	1	-	-	-	-	2
Davidson	7	8	6	5	2	6	34
Johnston	5	-	2	3	1	5	16
Montgomery	19	1	2	3	4	-	29
Randolph	3	8	9	8	5	3	36

Source: Randolph County Public Health Annual Report 2020-2021

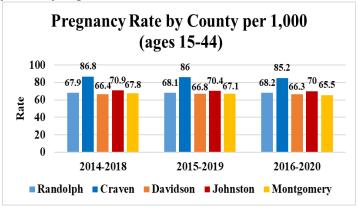
(-) Not Reported/unavailable

## **Maternal and Child Health**

"Improving the health and well-being of mothers and young children is an important societal goal. Pregnancy and early life are critical times to ensure healthy development, address health risks, and prevent future problems for women and their children."<sup>28</sup>

The pregnancy rate is based on the number of reported pregnancies that end in abortion, fetal death, or live birth and is calculated per 1,000 females between the ages of 15 and 44 in the population. The birth rate reflects the number of live births per 1,000 females in the population overall.

Graph 22: Pregnancy Rate by County (ages 15-44)



Source: NC State Center for Health Statistics

The Kaiser Family Foundation reports that health care coverage before, during, and after pregnancy enables access to care that supports healthy pregnancies and positive maternal and infant outcomes after childbirth (REF). Barriers to health care for people of color reflect maternal and infant health disparities. People of color are more likely to be uninsured and face other barriers like having limited access to providers and hospitals and lack of access to culturally and linguistically appropriate care. These challenges may be greater in rural and medically underserved areas. In the table below, African American and Hispanic/Latinx women in Randolph County have higher percentages of getting late to no prenatal care in the year 2020.

Table 15: Women in Randolph County with Late or No Prenatal Care, 2020

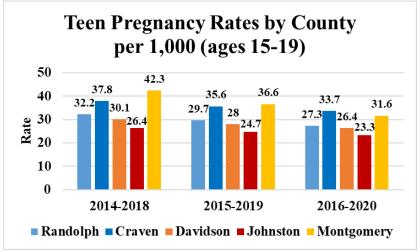
Race/Ethnicity	Percentage
African-American, Non- Hispanic	19.3%
American Indian, Non- Hispanic	N/A
Hispanic/Latinx	20.3%
Other Races, Non- Hispanic	8.9%
White, Non-Hispanic	14.2%

Source: NC County Health Data Book 2023

Where teens are born, live, learn, play, work, and worship have an impact on their health outcomes. Drivers of health inequities identified by the Centers for Disease Control and Prevention that contribute to high teen birth rates include low education or low-income levels of a teen's family, few opportunities in a teen's community for positive youth involvement, and neighborhood racial segregation.

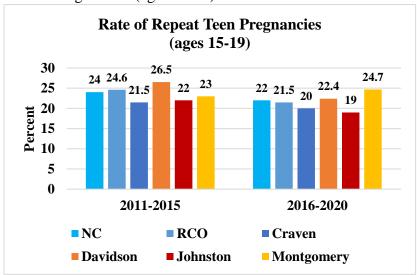
Limited access to quality health education and services, including contraception and sexually transmitted infection information, can serve as a barrier to teens. Children of teenage mothers are more at risk of developing health problems, having lower school achievement, dropping out of high school, becoming incarcerated during adolescence, giving birth as a teenager, and experiencing unemployment as a young adult.

Graph 23: Teen Pregnancy Rates by County (ages 15-19)



Source: NC State Center for Health Statistics

Graph 24: Rate of Repeat Teen Pregnancies (ages 15-19)



Source: NC State Center for Health Statistics \*Data not found for the years 2006-2010

The health of mothers and their children can reflect the present health of the total population. Several maternal factors and behaviors have been linked to preterm birth and low birth weight, which can be associated with infant mortality. Such factors may include failure to begin prenatal care in the first trimester, mothers having less than a 12th grade education, and births to adolescent women (under age 20).

Babies born too early and/or too small are at a greater risk for health conditions, developmental problems, neurological impairments, development of heart and respiratory problems later in life, as well as educational and social impairments.

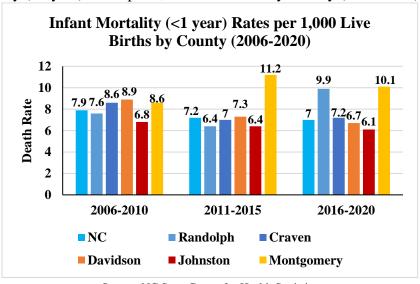
Table 16: Preterm Birth Rate (2018-2021)

Preterm Birth Rate per 100,00 live births (2018-2021)			
Region Birth Rate			
North Carolina 10.7			
Randolph County 11.0			

\*Preterm is less than 37 weeks of pregnancy Source: March of Dimes- Preterm Birth- Jan 2022

- In 2021, 1 in 9 babies was born preterm in North Carolina.
- The rate of preterm birth in North Carolina is highest for Black infants (14.6%), followed by American Indian/Alaska Natives (11.1%), Hispanics (9.7%), Whites (9.6%) and Asian/Pacific Islanders (8.5%).<sup>29</sup>

Graph 25: Infant Mortality (<1 year) Rates per 1,000 Live Births by County (2006-2020)



Source: NC State Center for Health Statistics

Table 17: Child Mortality Rates per 100,000 Residents (ages 0-17)

Child Mortality Rates per 100,000 Residents (ages 0-17)						
	2011-2015 2016-2020					
NC	57.8	56.2				
Randolph	47.3	68.5				
Craven	62.2	62.3				
<b>Davidson</b> 49.5 52.8						
Johnston 48.5 43.3						
Montgomery	65	56.3				

Source: NC State Center for Health Statistics \* 2006-2010- data was not available by county

Table 18: Top 3 Causes of Infant & Child Deaths Ages 0-17 (2016-2020)

	Top 3 Causes of Infant & Child Deaths Ages 0-17 (2016-2020)					
Rank Order	NC	Randolph	Craven	Davidson	Johnston	Montgomery
1	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions
2	Illnesses	Illnesses	Birth Defects	Other Causes	Illnesses	Other Causes
3	Birth Defects	Motor Vehicle & Other Causes	Other Causes	Illnesses & Motor Vehicle	Birth Defects	Illnesses

Source: NC State Center for Health Statistics

Table 19: Top 3 Causes of Infant & Child Deaths Ages 0-17 (2011-2015)

	Top 3 Causes of Infant & Child Deaths Ages 0-17 (2011-2015)					
Rank Order	NC	Randolph	Craven	Davidson	Johnston	Montgomery
1	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions	Perinatal Conditions
2	Illnesses	Other Causes	Illnesses	Birth Defects	Illnesses	Illnesses
3	Birth Defects	Birth Defects & Illnesses	Birth Defects	Illnesses	Birth Defects	Other Causes

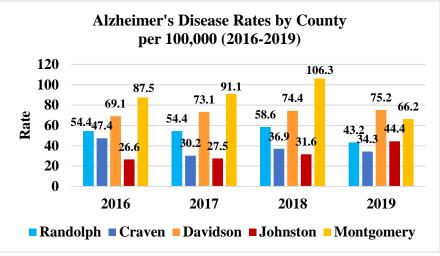
Source: NC State Center for Health Statistics

## **Chronic Disease**

Alzheimer's disease is the most common form of dementia among the geriatric population, accounting for 60 to 80 percent of dementia cases. It is a progressive and irreversible disease where memory and cognitive abilities are slowly destroyed making it impossible to carry out even simple, daily tasks. Alzheimer's disease typically manifests after the age of 60.<sup>30</sup>

According to the Centers for Disease Control and Prevention, Alzheimer's disease is the seventh leading cause of death for all adults. It's the sixth leading cause of death in Randolph County and North Carolina.

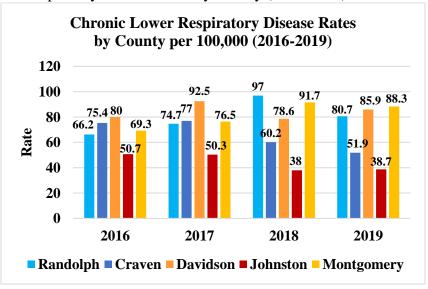
Graph 26: Alzheimer's Disease Rates by County (2016-2019)



Source: NC State Center for Health Statistics

Chronic lower respiratory disease is defined by the Centers for Disease Control and Prevention as encompassing four major diseases: chronic obstructive pulmonary disease (COPD), chronic bronchitis, emphysema, and asthma. Chronic lower respiratory disease is the fourth leading cause of death in Randolph County and the fifth in North Carolina.<sup>31</sup>

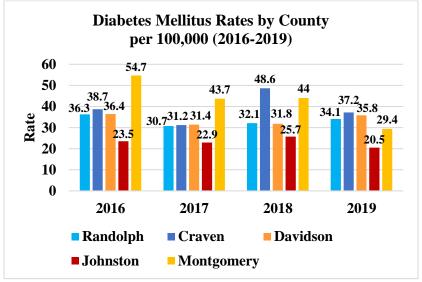
Graph 27: Chronic Lower Respiratory Disease Rates by County (2016-2019)



Source: NC State Center for Health Statistics

Diabetes is a disease marked by elevated levels of blood glucose, resulting from defects in insulin production or action in the body. In 2019, approximately 11.9% of the state's population had Type 1 or Type 2 diabetes.<sup>32</sup> Diabetes is the seventh leading cause of death in both Randolph County and North Carolina.

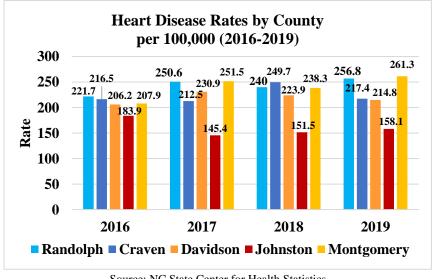
Graph 28: Diabetes Mellitus Rates by County (2016-2019)



Source: NC State Center for Health Statistics

Heart disease and stroke fall under the umbrella of cardiovascular disease (CVD). Heart disease is a term that includes several heart conditions, the most common of which is coronary heart disease, which can lead to a heart attack. Heart disease is the number one leading cause of death in Randolph County and North Carolina.

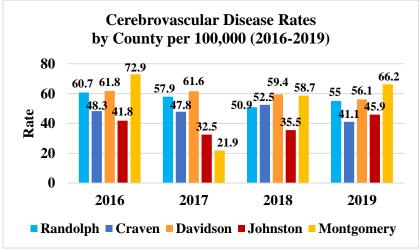
Graph 29: Heart Disease Rates by County (2016-2019)



Source: NC State Center for Health Statistics

Cerebrovascular disease, also referred to as stroke, is an interruption of blood flow to the brain. Cerebrovascular disease (stroke) is the fifth leading cause of death in Randolph County and the fourth in North Carolina.<sup>34</sup>

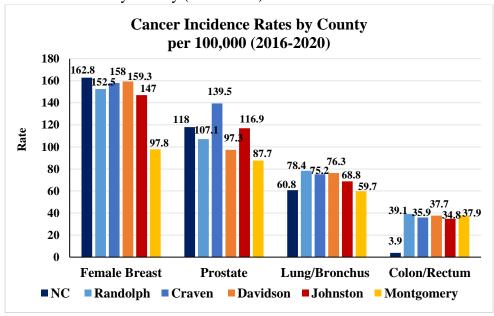
Graph 30: Cerebrovascular Disease Rates by County (2016-2019)



Source: NC State Center for Health Statistics

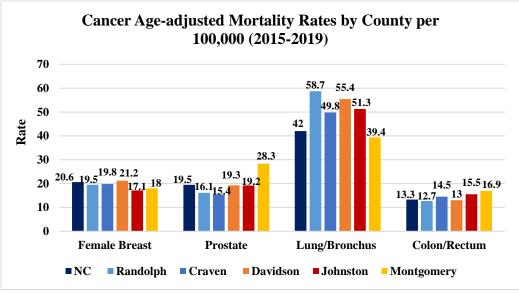
Cancer is the second leading cause of death in Randolph County and North Carolina. There are several types of cancers that fall under this umbrella. Lung/bronchus and breast cancer have the highest incidence (occurrence) rate from 2016-2020.

Graph 31: Cancer Incidence Rates by County (2016-2020)



Source: NC State Center for Health Statistics

Graph 32: Cancer Age-Adjusted Mortality Rates for NC by County (2015-2019)



Source: NC State Center for Health Statistics

### **Social Determinants of Health**

Healthy People 2030 defines social determinants of health as "the conditions in the environment where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risks".<sup>1</sup>

**Social determinants of health are grouped into 5 categories** and each has an impact on the health status of the individual and their community overall.

Figure 3: Social Determinants of Health

#### Social Determinants of Health

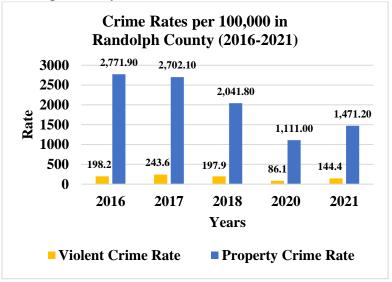


Source: Healthy People 2030

### **Crime & Safety**

Violent crime includes offenses such as murder, rape, robbery, and aggravated assault. Property crime includes the offenses of burglary, larceny, and motor vehicle theft.

Graph 33: Crime Rates in Randolph County (2016-2021)



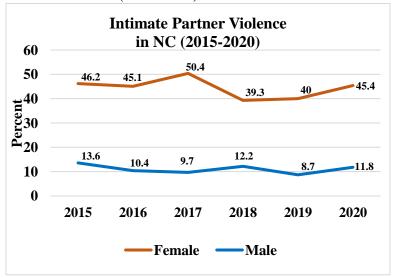
Source: North Carolina State of Bureau Investigation

\*2019 data is missing for the 12-month period for over 50% of the county population

Homicide is considered domestic violence-related if the perpetrator and victim have one or any of the following relationships.

- current or former spouses;
- people of the opposite sex who have cohabited or are cohabiting;
- parent or children relationships;
- people who have a child in common;
- current or former household members;
- people of the opposite sex who are in a dating relationship or have been romantically involved before.

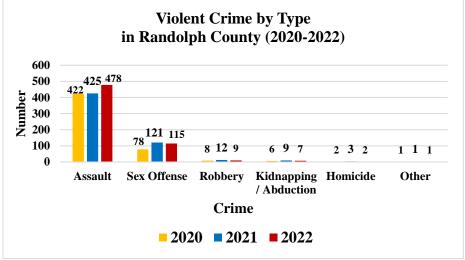
Graph 34: Intimate Partner Violence in NC (2015-2020)



Source: NC Violent Death Reporting System

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Graph 35: Violent Crime by Type in Randolph County (2020-2022)



Source: Randolph County Crime Dashboards

### Crash / Traffic

Approximately 40,000 individuals are killed every year on roadways, including over 1,700 people in North Carolina in 2021.<sup>34</sup>

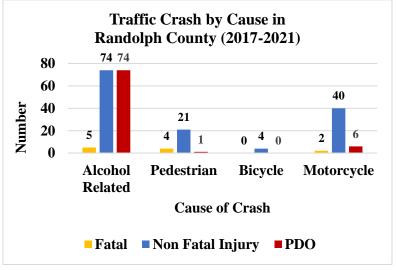
#### **Vision Zero Initiative**

Vision Zero is a traffic safety approach focused on eliminating traffic deaths and serious injuries, while improving access to safe, sustainable, and equitable mobility for everyone. Setting zero as the only acceptable target, Vision Zero sends a strong message: deaths on our transportation network are unacceptable and preventable.<sup>34</sup>

#### Vision Zero in North Carolina

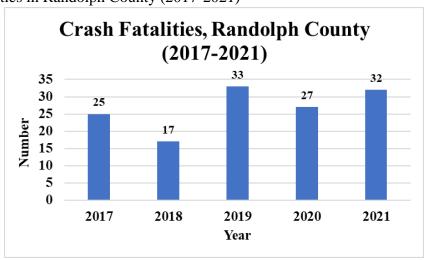
Vision Zero started in North Carolina in 2015. Several communities across the state have made a commitment to Vision Zero. Since 2020, with support from the North Carolina Governor's Highway Safety Program, UNC has provided technical assistance to Vision Zero communities across North Carolina to strengthen community capacity to address road traffic injuries and deaths through effective, multi-sector coalitions. The UNC team represents the UNC Injury Prevention Research Center, UNC Highway Safety Research Center, the Collaborative Sciences Center for Road Safety, UNC Gillings School of Global Public Health, and the North Carolina Institute for Public Health.<sup>34</sup> The graphs below reflect the impact of motor vehicle crashes in Randolph County.

Graph 36: Traffic Crash by Cause in Randolph County (2017-2021)



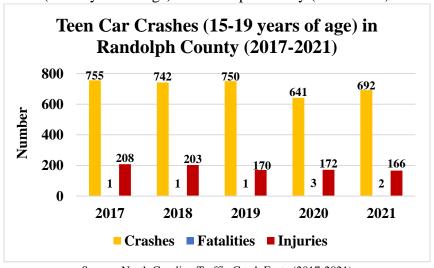
Source: North Carolina 2021 Traffic Crash Facts \*PDO- property damage only

Graph 37: Crash Fatalities in Randolph County (2017-2021)



Source: North Carolina 2021 Traffic Crash Facts

Graph 38: Teen Car Crashes (15-19 years of age) in Randolph County (2017-2021)



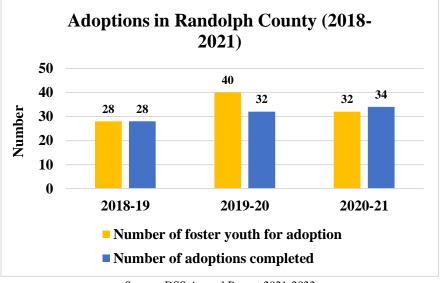
Source: North Carolina Traffic Crash Facts (2017-2021)

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# **Foster Care/Child Adoptions**

The primary purpose of adoption is to help children whose parents are incapable of providing parental care responsibilities to legally become available for adoption through termination of the parent's parental rights, or through a voluntary relinquishment of parental rights by the parents.

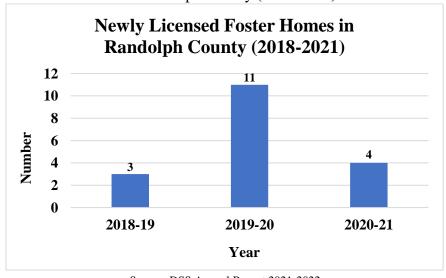
Graph 39: Adoptions in Randolph County (2018-2021)



Source: DSS Annual Report 2021-2022

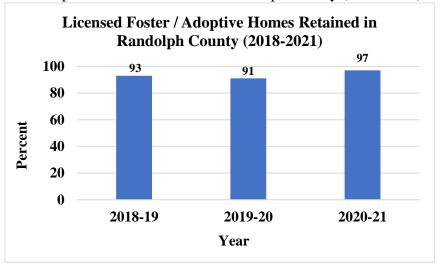
Foster care is temporary substitute care provided to a child who must be separated from their parent(s), guardian(s), or caretaker(s) due to abuse, neglect, or dependency. A child placed in foster care is in the legal custody of the department of social services (DSS) who is acting as the parent. A child may be placed in the custody of DSS by court order or voluntary relinquishment of parental rights by the child's parents.

Graph 40: New Licensed Foster Homes in Randolph County (2018-2021)



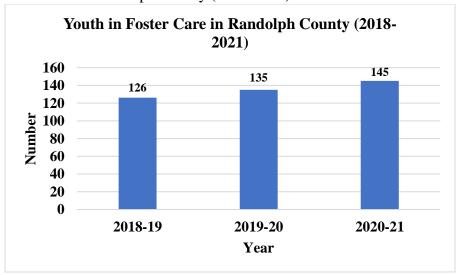
Source: DSS Annual Report 2021-2022

Graph 41: Licensed Foster/Adoptive Homes Retained in Randolph County (2018-2021)



Source: Institute for Family 2022 Randolph County Community Assessment

Graph 42: Youth in Foster Care in Randolph County (2018-2021)



Source: Institute for Family 2022 Randolph County Community Assessment

# **K-12 Education**

A high school diploma is a standard requirement for most jobs and higher education opportunities. Not completing high school is linked to a variety of factors that can negatively impact health, including limited employment prospects, low wages, and poverty. A student's ability to graduate from high school may be affected by factors related to the individual student as well as broader institutional factors such as family, school, and community.

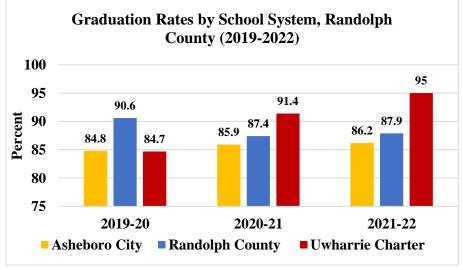
Graduating from high school is an important personal achievement and is essential for an individual's social and economic advancement. Graduation rates can also be an important indicator of the performance of an educational system. Bachelor's degree opens up career opportunities in a variety of fields and is often a prerequisite for higher-paying jobs. Better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. This is true even when factors like income are considered.<sup>35</sup>

**Randolph County High School Graduation** (2017-2019)100 95 95 95 89.3 95 91 91.4 87.6 90 85.9 86.2 86.1 85.9 86.2 85.5 84.3 **85** 81.6 81.2 80 Trinity Charter. 75 Providence Grave 70 Farly Callege Randleman augh School Shehoro **2017-18 2018-19** 

Graph 43: Randolph County High School Graduation (2017-2019)

Source: NC Department of Public Instruction

Graph 44: Graduation Rates by School System, Randolph County (2019-2022)



Source: NC School Report Cards

Math proficiency is an essential skill that is needed to navigate life and its associated with future academic and economic success.<sup>36</sup> North Carolina Demography references research showing that students to complete higher levels of math in high school experience lower rates of unemployment and obtain higher salaries. This is dependent on math proficiency during their learning in younger grades.<sup>37</sup>

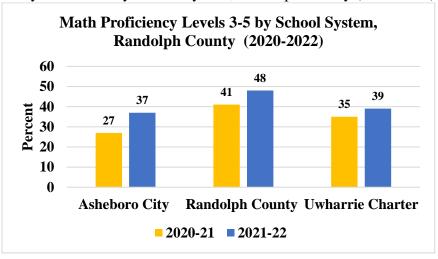
Student test performance is reported as one of four achievement levels. End-of-Grade (EOG) scores of levels 3-5 indicate grade proficiency.

#### **Math Performance**

- End-of-Grade (EOG) Mathematics assessments measure a student's performance on the North Carolina Standard Course of Study (NCSCS) for Mathematics in grades 3–8.
- Some students are instructed in the North Carolina Math 1 NCSCS in middle school and thus take the North Carolina Math 1 EOC before grade 9.

• The Math Performance is a combination of EOG Mathematics scores at grades 3-8 and the North Carolina Math 1 scores at grade 8.<sup>38</sup>

Graph 45: Math Proficiency Levels 3-5 by School System, Randolph County (2020-2022)



Source: NC School Report Cards

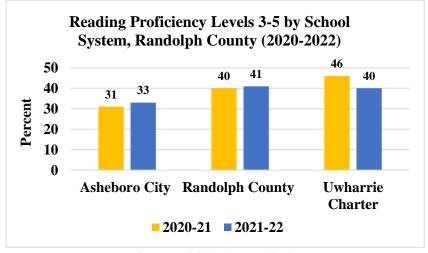
Reading proficiency is a critical skill that has an impact on student's future educational journey. According to the Children's Reading Foundation, students below the third-grade reading level will not be able to comprehend half of the fourth-grade curriculum. This indicates that these students will fall behind on other subjects like math and science. Graduation rates are affected as well. Sixteen percent of children who are not reading proficient by the third grade do not graduate on time.<sup>37</sup>

Student test performance is reported as one of four achievement levels. EOG scores of levels 3-5 indicate grade proficiency.

#### **Reading Performance**

• End-of-Grade (EOG) English Language Arts/Reading assessments measure students' performance on the North Carolina Standard Course of Study (NCSCS) for English Language Arts in grades 3–8.<sup>38</sup>

Graph 46: Reading Proficiency Levels 3-5 by School System, Randolph County (2020-2022)



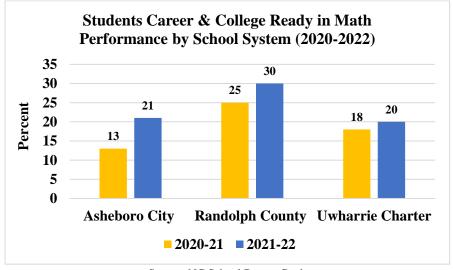
Source: NC School Report Cards

The NC Ready for Success Steering Committee, consisting of individuals from the Department of Public Instruction (DPI), UNC System, and North Carikuba Independent Colleges and Universities System created a definition for career and college ready in 2012.

A student is considered **career and college ready** "when they have knowledge and academic preparation needed to enroll and succeed, without the need for remediation, in introductory college credit-bearing courses in English language arts and mathematics within an associate or baccalaureate program."

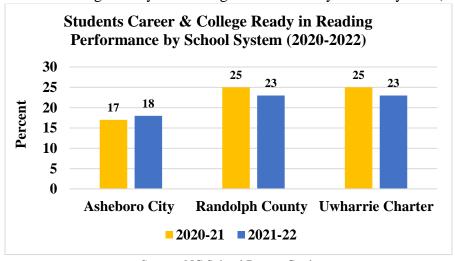
North Carolina Demography reports that it's important for students to be career and college ready in both math and reading in order to successfully navigate school, obtain a degree/credential/trade after high school, and life.<sup>37</sup>

Graph 47: Students Career & College Ready in Math Performance by School System (2020-2022)



Source: NC School Report Cards

Graph 48: Students Career & College Ready in Reading Performance by School System (2020-2022)



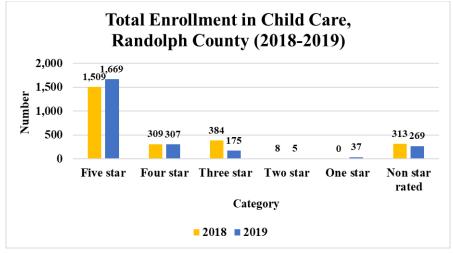
Source: NC School Report Cards

A child care quality rating helps recognize program quality. North Carolina uses a star symbol to indicate levels of quality in child care facilities.<sup>39</sup> **Star ratings are measured on a one to five scale.** One star means that a child care program meets North Carolina's minimum licensing standards for child care<sup>40</sup>. Programs that choose to meet higher standards can apply for a two to five-star license. Five stars ensure the highest level of quality.

The star rating is comprised of a facility's scores in three quality components:

- ★ Staff Education
- **★** Program Standards
- ★ Compliance History

Graph 49: Total Enrollment in Child Care in Randolph County 2018-2019



Source: Kids Count Data Center

# **Physical & Built Environment**

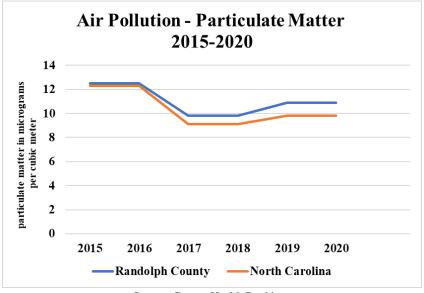
#### **Air Pollution**

Air pollution can have a harmful effect on the health status of individuals. Consequences of air pollution can lead to decreased lung function, chronic bronchitis, asthma, and other pulmonary conditions. Examples of where these harmful particles in the air can come from are forest fires, gases emitted from power plants, industrial operation, and vehicles. <sup>41</sup> **Air pollution-** particulate matter is a measure of the fine particulate matter in the air.

The criteria used by County Health Rankings to determine fine particulate matter is particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers (PM2.5).

The chart below shows air pollution particulate matter in Randolph County and North Carolina over the years 2015-2020.

Graph 50: Air Pollution – Particulate Matter (2015-2020)



Source: County Health Rankings

# **Drinking Water**

Having clean water is critical to human health, our ecosystems, and the economy. Water needs to be safe and readily available because it's used for drinking, domestic use, and food production. Protecting water sources reduces the risk of unsafe levels of germs or chemicals in the water and the cost of water treatment.<sup>42</sup>

The Environmental Protection Agency (EPA) regulates drinking water quality in public water systems. Every public water system is required to provide its customers with an annual consumer confidence report, which provides information on local drinking water quality.<sup>42</sup>

The Safe Drinking Water Information System (SDWIS) from the EPA uses the measures "yes" and "no" to indicate whether there is a water violation when checking water safety. 43

- "Yes" indicates at least one community water system in the county received at least one health-based violation during a specific time frame.
- "No" indicates there was no health-based drinking water violation in the community drinking water system in the county.

Table 20: Presence of Water Violations in Randolph County (2019-2022)

Year	Drinking Water Violations
2019	Yes
2020	Yes
2021	No
2022	No

Source: County Health Rankings- drinking water violations

<sup>\*</sup>Data should not be compared to other years, missing data for some years

# Housing

Housing is important because it provides safety, comfort, stability, and contributes to the overall health of individuals. Having no housing has a negative effect on individuals as it puts them at an increased risk of health problems and their physical and mental health declines. Health problems among individuals experiencing homelessness results from factors such as barriers to health care, lack of access to food, protection from the elements, limited resources and social services. <sup>44</sup> Poor or inadequate housing also puts individuals at health risk. The presence of lead, mold, or asbestos, poor air quality, and overcrowding can contribute to negative health outcomes including chronic disease and injuries. <sup>45</sup>

The United States Census Bureau American Community Survey reports that from the years 2015-2019, Randolph County had 62,411 total housing units with a vacancy rate of nine percent. Forty-four percent of houses were built in 1979 or earlier and 22% are mobile homes. The median household income was \$47,288 with a median housing value of \$124,100 and a median rent of \$703.

**Cost-burdened** is defined as homeowners spending **more than 30%** of their income on rent, mortgage, and other housing needs.<sup>8</sup>

Table 21: Renter and Owner Statistics in Randolph County (2015-2019)

	Re	nters			Owners	
Number of Renters	Renter Median Income	% Cost Burdened Renters	% Severely Cost- Burdened Renters	Number of Homeowners	Owner Median Income	% Cost Burdened Homeowners
15,942	\$29,946	40%	19%	40,599	\$56,649	17%

Source: US Census, American Community Survey, 5-year estimates, 2015-2019

The chart below reports housing characteristics in Randolph County for 2006-2020. Kitchen and plumbing facilities provide an indication of living standards and assess the quality of household facilities within the housing inventory.<sup>46</sup>

The 2020 American Community Survey reports what complete plumbing and kitchen facilities indicates. Complete kitchen facilities include:

- sink with a faucet
- stove or range
- refrigerator

Complete plumbing facilities include:

- hot and cold running water
- a bathtub or shower

<sup>\*</sup>All kitchen facilities must be located in the house, apartment, or mobile home, but they need not be in the same room.

<sup>\*</sup>Both facilities must be located inside the house, apartment, or mobile home, but not necessarily in the same room.

Housing Characteristics in Randolph County (2006-2020) 1.6% 1.5% 1.4% 1.2% 1.0% 1.0% Percent %8.0 0.6% 0.5% 0.5% 0.4% 0.3% 0.2% 0.2% 0.0% 2016-2020 2011-2015 Lacking complete plumbing facilities Lacking complete kitchen facilities

Graph 51: Housing Characteristics in Randolph County (2006-2020)

Source: US Census, American Community Survey, 2006-2020

# Walkability and Green Space

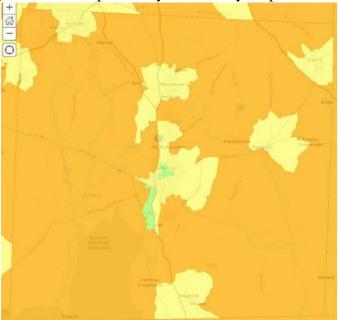
Walking is an easy way to maintain a physically active lifestyle for individuals. Walking can be more than exercise. Walking can be a mode of transportation to work, school, and community resources. Access to walkable spaces can make it easier for people of all ages and abilities to get moving. Sidewalks or parks with accessible areas can also help those that bike or use wheelchairs to get around.<sup>47</sup>

The Environmental Protection Agency developed the National Walkability Index which is used to measure walkability in communities in the United States. "The National Walkability Index is based on measures of the built environment that affect the probability of whether people walk as a mode of transportation- street intersection density, proximity to transit stop, and diversity of land uses".<sup>48</sup>

# **Walkability Index**

1-5.75	Least walkable
5.76 - 10.5	Below average walkable
10.51 - 15.25	Above average walkable
15.26 - 20	Most walkable

Figure 10: Randolph County Walkability Map

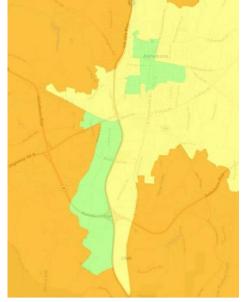


This is a map of Randolph County indicating the most walkable areas in the county are in green.<sup>49</sup>

According to the walkability index, Randolph County has an above average walkability in these areas.

Source: EPA maps arcGIS

Figure 11: Walkability Areas in Parts of Asheboro



Source: EPA maps arcGIS

A closer look at the green portions of the map. These areas are located in downtown and other parts of Asheboro.

## **Parks and Recreation**

According to the Centers for Disease Control and Prevention, engaging in regular physical activity and having access to nature or green spaces are beneficial for physical and mental health. Exposure to nature or green spaces has positive physical and mental health benefits such as lower rates of heart disease, stroke, obesity, stress, and depression.<sup>50</sup>

Researchers from North Carolina State University report parks and green spaces provide a number of mental health benefits such as enhanced cognitive functioning and attention, reduced stress and depression, and increased levels of happiness and well-being. Parks benefit communities as well by providing spaces for people to gather and build social connections.<sup>51</sup>

Randolph County has five parks and recreation offices offering a variety of group/individual sports, classes, and groups activities. The offices are located in Archdale, Asheboro, Liberty, Ramseur, and Randolph County also offers its residents a variety of beautiful hiking trails that everyone can enjoy.

### **Randolph County Hiking Trials**

Creekside Park and Trails and Greenway
Freedom Park Trail
Paul Henry Smith Park Trail
Deep River State Trails
Faith Rock Trail
Mount Shepherd
Ridge's Mountain Preserve
Camp Caraway

Franklinville Section | Deep River State Trai



Lake Lucas Trail North Asheboro Park Trail North Carolina Zoo trials Birkhead Mountains Wilderness Uwharrie Trail Pisgah Covered Bridge Trail Clay Presnell Park Trail

Pisgah Covered Bridge





Source: Piedmont Trials in Randolph County

Table 22: Most Populated Areas in Randolph County with Park Access

Park Location	Proximity to Park Access		
Archdale	11% of Archdale Residents live within a 10- minute walk to a park		
Asheboro	29% of Asheboro residents live within a 10-minute walk of a park		
Randleman	36% of Randleman Residents live within a 10- minute walk to a park		
Trinity	0% of Trinity Residents live within a 10- minute walk to a park		

Source: Trust for Public Land, Park Finder

# **Public Library Access**

Public libraries are important and play a crucial role in the community by

- Supporting reading literacy for people of all ages and walks of life;
- Providing a safe gathering place for all people (meetings, study areas, reading areas, social networking);
- Supporting personal productivity and cultural engagement;
- Playing an important role as the technology provider in the community;

• Serving as a hub of information and resources for the community.<sup>52</sup>

Table 23: Public Libraries in Randolph County

#### **Branches**

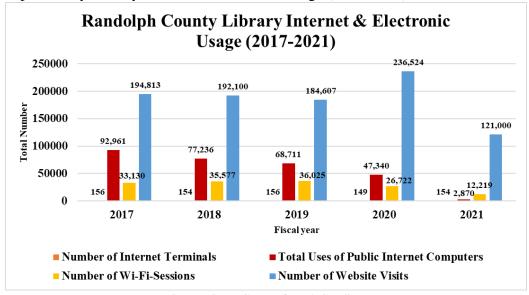
- Archdale Public Library
- Asheboro Public Library
- Franklinville Public Library
- Liberty Public Library
- Ramseur Public Library
- Randleman Public Library
- Seagrove Public Library

Public libraries in Randolph County offer many services for the public. General services include interlibrary loans, meeting/study facilities, children's section, teen zone, and history & genealogy. Other services include computer classes, printing, fax, and internet access. The library also offers a human services program called Community Navigators. Navigators are social workers located inside the library that can assist residents finding community resources such as housing, food, transportation, and more.

# **Digital Equity**

The National Digital Inclusion Alliance defines digital equity as a condition in which all individuals and communities have the information technology capacity needed for full participation in society, democracy, and economy. As the world becomes more reliant on technology, it is important that all have equitable internet access. Internet is used to search and apply for jobs, locate human services, communication, and telehealth. The COVID-19 pandemic exacerbated digital inequities and widened the digital divide. The digital divide is the gap between those who have affordable access, skills, and support to effectively engage online and those who do not.<sup>53</sup>

Libraries play a central role in supporting and advancing digital equity, literacy and inclusion.<sup>54</sup> Graph 52: Randolph County Library Internet & Electronic Usage (2017-2021)



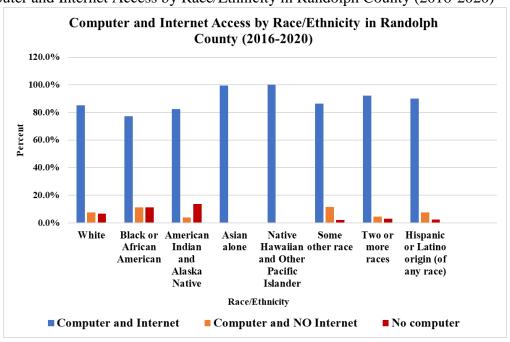
Source: State Library of North Carolina

Table 24: Types of Internet Access for Randolph County and North Carolina (2013-2020)

Type of Internet Subscription	North Carolina 2016-2020	Randolph County 2016-2020	North Carolina 2013-2017	Randolph County 2013-2017
With an Internet subscription	83.7%	80.9%	76.4%	69.3%
Dial-up with no other type of Internet subscription	0.30%	0.40%	0.60%	0.90%
Broadband of any type	83.4%	80.5%	75.8%	68.4%
Cellular data plan	72.6%	71.9%	47.6%	42.8%
Cellular data plan with no other type of Internet subscription	10.3%	10.8%	7.5%	7.2%
Broadband such as cable, fiber optic or DSL	69.7%	66.5%	65.2%	58.3%
Satellite Internet service	6.3%	4.9%	4.9%	4%
Without an Internet subscription	16.3%	19.1%	23.6%	30.7%

Source: US Census, American Community Survey (2013-2020)

Graph 53: Computer and Internet Access by Race/Ethnicity in Randolph County (2016-2020)



Source: US Census American Community Survey (2016-2020)

## **Health & Wellness**

To evaluate health and wellness, data from the Behavioral Risk Factor Surveillance System (BRFSS) was used. BRFSS is the nation's premier system of health-related telephone surveys that collect data from residents 18 years and older in all 50 states, the District of Columbia, and three United States territories regarding health-related risk behaviors, chronic health conditions, and use of preventive services. The data is collected at the

state level to target health promotion and interventions in each state. BRFSS interviews are conducted monthly and data are analyzed annually (on a calendar-year basis).<sup>55</sup>

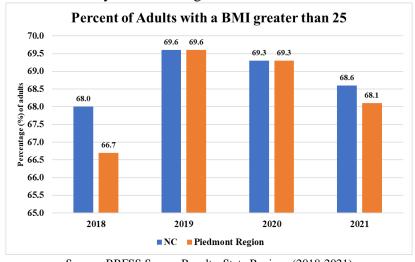
#### Overweight/Obesity

Overweight and obesity are growing concerns in the United States and in North Carolina. Body Mass Index (BMI) is used to show if a person is at a healthy weight for your height.<sup>56</sup> In general, the higher the BMI number the more body fat a person has. According to the State of Obesity Report, 36% of adults are obese in North Carolina (2021). An additional 19.8% of children ages 10-17 are obese (2019-2020). Overweight is defined as having a BMI of 25 or greater. Obesity is defined as having a BMI greater or equal to 30.

BMI Scale for Adults				
Underweight	Less than 18.5			
Normal	18.5 to 24.9			
Overweight	25 to 29.9			
Obese	30 or more			

The graph below compares the Piedmont region to North Carolina. Randolph County is included in the Piedmont region.

Graph 54: Percent of Adults with a Body Mass Index greater than 25



Source: BRFSS Survey Results, State Regions (2018-2021)

## **Physical Activity**

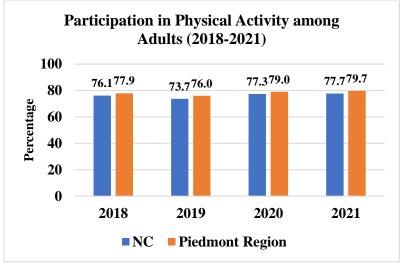
According to the Center for Disease Control and Prevention (CDC), physical activity is anything that gets you moving. The current guidelines from the Physical Activity Guidelines for Americans, recommends adults need 150 minutes of moderate-intensity physical activity and 2 days of muscle strengthening activity each week.<sup>57</sup>

The Behavioral Risk Factor Surveillance System (BRFSS) conducts surveys on health-related risk behaviors, chronic health conditions, and use of preventive services. When collecting information about physical activity, the survey question below was asked. The participants that answered the survey question reported "yes".

**BFRSS** question for the graph below: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

The graph below compares the Piedmont region to North Carolina. Randolph County is included in the Piedmont region.

Graph 55: Physical Activity among Adults

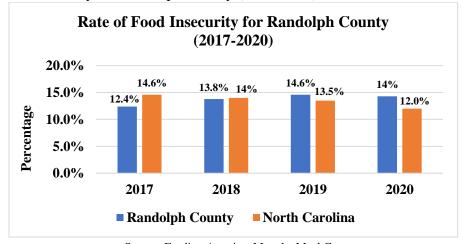


Source: BRFSS Survey Results, State Regions (2018-2021)

### **Food Access**

**Food insecurity** as defined by the United States Department of Agriculture, is the **lack of access, at times, to enough food for an active, healthy life**. Food insecurity is a serious public health issue that is associated with negative social and health outcomes. Factors such as unemployment and poverty can make it hard to have adequate access to food for individuals and families.<sup>58</sup>

The graph below demonstrates a steady rise in food insecurity among Randolph County residents. Graph 56: Rate of Food Insecurity for Randolph County (2017-2020)



Source: Feeding America, Map the Meal Gap

**Limited access to healthy foods** in the graph below represents those who are low-income and do not live close to a grocery store. This limits access to healthy foods such as fruits and vegetables which can impact health negatively.<sup>59</sup>

**Rate of Limited Access to Healthy Foods** (2006-2019)25% 22% 20% 15% 10% 10% 8% 8% 10% 7% 7% 5% 0% 2006 2010 2015 2019

Graph 57: Rate of Limited Access to Healthy Foods (2006-2019)

Source: County Health Rankings

■ North Carolina

### **Mental Health**

Mental health disorder is a common condition that affects millions of Americans. According to the National Alliance on Mental Illness, about 1 in 5 adults in the United States and 1 in 6 youth ages 6-17 experience a mental health disorder every year. Finding treatment resources can be a challenge due to lack of healthcare availability and stigma.<sup>60</sup>

• 50% of all lifetime mental health disorders begin by age 14 and 75% by age 24.

■ Randolph County

- Suicide is the 2<sup>nd</sup> leading cause of death among people aged 10-14 years in the United States.
- Suicide is the 9<sup>th</sup> leading cause of death in Randolph County and the 11<sup>th</sup> leading cause of death for North Carolina.



"We have issues related to services that people get, the way that people are treated that discourage people from getting mental health treatment. We have cultural beliefs and situations that prevent people from getting the help that they need."

- Mental Health Focus Group Participant

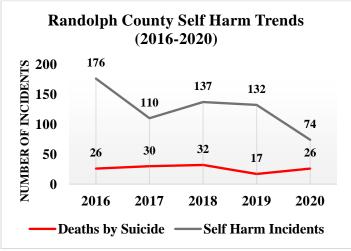
According to the Centers for Disease Control and Prevention (CDC), suicide is death caused by injuring oneself with the intent to die. A self-harm incident, is when a person harms themselves with intent to end their life, but does not die as a result of not completing the action.<sup>61</sup>

In a study published by the American Journal of Psychiatry, a national cohort of adults diagnosed with self-harm were followed for a year. During the 12 months following a nonfatal self-harm incident the rate of repeating self-harm was 263.2 per 100,000 person/year and the rate of completed suicide was 439.1 per 100,000 person/year or 37.2 times higher than the matched general population.<sup>62</sup>

The patients treated for self-harm frequently repeated self-harm in the following year. Patients who use a violent method for the initial self-harm (especially firearms) have a higher risk of suicide, particularly right after the initial event. This highlights the importance of careful assessment and close follow-up.<sup>62</sup>

For every death related to suicide, there are incidents of self-harm. Self-harm incidents reported to local hospitals opportunities for intervention among Randolph County residents.

Graph 58: Randolph County Self Harm Trends (2016-2020)



Source: NC DETECT and NC Violent Death Reporting Dashboard

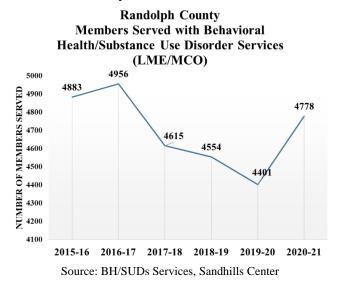


"A lot of people are definitely in need; they can't afford to go to the doctor let alone go to a mental health facility. They can't afford to buy medication"

- Mental Health Focus Group Participant

The graph below reflects the number of Randolph County members served by Sandhills Center, 2015-2021. Use of telehealth services may explain the sharp increase in 2020-2021.

Graph 59: Randolph County Residents Served by Behavioral Health/Substance Use Disorder Services



# **Adverse Childhood Experiences**

According to the Centers for Disease Control and Prevention, Adverse Childhood Experiences (ACEs) are potentially traumatic events that occur in childhood (0-17 years). ACEs include

- experiencing violence, abuse or neglect;
- witnessing violence in the home or community;
- having a family member attempt or die by suicide;
- substance use problems;
- mental health problems;
- instability due to parental separation or household members being in jail or prison.<sup>63</sup>

\*This is not a complete list of examples. There are other traumatic experiences that impact the health and wellbeing of a child.

A child's environment can make them feel unsafe and unstable. Reasons for a child feeling insecure may include, growing up in a home with substance use and/or mental health disorders, and instability due to being separated from a parent(s) or other members of the home as a result of being in jail or prison. Youth with a history of adverse childhood experiences are at an increased risk of chronic diseases, sexually transmitted infections, and maternal and child health problems. Preventing adverse childhood experiences could reduce a large number of poor health outcomes.<sup>63</sup>

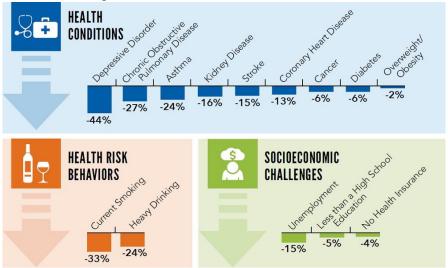


"Most of our kids in foster care, need trauma focused therapists...that we don't have a lot of, or if we do, it's like a six week wait and courts want your kids in therapy and we're having to go in there and say, "we don't have anybody close by that can do it"

-- Mental Health Focus Group Participant

The figure below lists health conditions, health risk behaviors, and socioeconomic challenges that could be avoided in adulthood, if a person had not experienced ACEs at a younger age or if they had received care and support for their experience.<sup>64</sup>

Figure 12: Potential Reduction of Negative Outcomes in Adulthood



Source: BRFSS 2015-2017, 25 states, CDC Vital Signs, November 2019

#### **Substance Use Disorder**

The Centers for Disease Control and Prevention define substance use disorders as treatable, chronic diseases characterized by a pattern of use of a substance(s) leading to impairments in health, social function, and control over substance use. According to the 2020 National Survey on Drug Use and Health, 40.3 million Americans, 12 years and older, had a substance use disorder in the past year. Randolph County Public Health leads the Randolph County Opioid Drug Community Collaborative for the county. The coalition places emphasis on prevention, harm reduction, and connect to care.

The chart below represents the calculations from North Carolina Department of Health and Human Services on the prevalence (the proportion of persons in a population who have a particular disease or attribute at a specified point in time or over a specified period of time) of substance use disorders based on 2019-2020 National Survey on Drug Use and Health survey results.<sup>66</sup>

Table 25: Substance Use Disorders (SUD) in the Past Year: Among People Aged 12 years or Older, by Age Group and State, Percentages, 2020

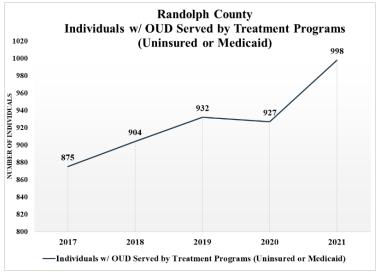
Location	Population Aged 12+	SUD Prevalence Estimate among 12+ Population	SUD Prevalence Estimate among 12+ Population (95% Confidence Interval)
-		12.73%	(10.56% -15.2%)
North Carolina	9,101,057	1,158,565	(961,072- 1,390,642)
Randolph County	-   124.298   15.823		(13,126 - 18,993)

Source: NC DHHS, IVPB analysis of 2020 National Survey on Drug Use & Health

The North Carolina Department of Health and Human Services (NCDHHS) reports that between the years 2000-2020, more than 28,000 North Carolinians died from drug overdoses. To address the overdoes crisis, NCDHHS worked with community partners to develop the NC Opioid and Substance Use Action Plan. To share state, regional, and, county-level data related to substance use and the progress towards the goals in the action plan with partners across NC, the Opioid and Substance Use Action Plan (OSUAP) data dashboard was created. 66

The graph below displays data from the OSUAP dashboard on how many individuals in Randolph County have received treatment for opioid use disorder from 2017-2021. The NC Opioid and Substance Use Action Plan launched in 2017 and since then, the number of individuals receiving treatment has been steadily increasing. There is an increase between 2020 and 2021 due to the COVID-19 pandemic as this increased the number of people able to access treatment through telehealth services. 66

Graph 60: Randolph County Individuals with Opioid use Disorder Served by Treatment Programs (Uninsured or Medicaid)



Source: NC Opioid and Substance Use Action Plan Dashboard

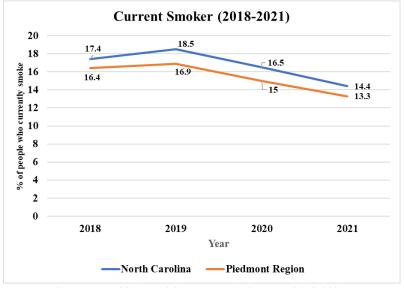
### **Tobacco Use**

Data on tobacco use is not collected at the local level in Randolph County. Therefore, data from the Behavioral Risk Factor Surveillance System (BFRSS) was used. BRFSS conducts surveys on health-related risk behaviors, chronic health conditions, and use of preventive services. BRFSS interviews are conducted monthly and data are analyzed annually (on a calendar-year basis).<sup>55</sup>

The graph below compares the Piedmont region to North Carolina. Randolph County is included in the Piedmont region.

**BRFSS survey question:** "Current Smoker (every day or some days)?"

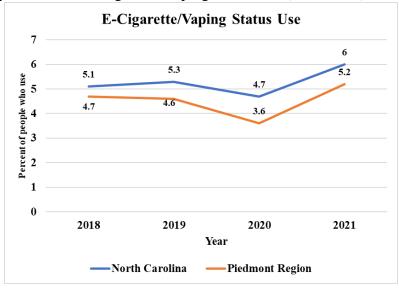
Graph 61: BRFSS Survey Results for Current Smoker (2018-2021)



Source: BRFSS Annual Survey Results by Year (2018-2021)

As smoking overall has decreased, e-cigarette/vaping use has increased.

Graph 62: BRFSS Survey Results for E-Cigarette/Vaping Status Use (2018-2021)



Source: BRFSS Annual Survey Results by Year (2018-2021)

## **Youth Tobacco Use**

The Youth Risk Behavior Surveillance System (YRBSS) is a survey conducted by the Centers for Disease Control and Prevention (CDC) to monitor youth health behaviors in the United States. The survey collects data from the youth populations in grades 9-12.<sup>67</sup> The 2021 YRBSS report with national data was released, but the full datasets for individual states have not been released. Therefore, the latest data available for North Carolina is limited to 2019 and prior years.

The survey includes the following question: "currently used electronic vapor products including e-cigarettes, vape pens, e-cigars, e-hookahs, hookah pens, and mods on at least one day during the 30 days before they answered the survey".

According to the YRBSS results, the percentage of high school students in North Carolina who currently used electronic vapor products has increased from 29.6% in 2015 to 35.5% in 2019. Among middle school students, the percentage has also increased from 9.7% in 2017 to 14.4% in 2019.<sup>68</sup>

### **Alcohol Use**

Data on alcohol use is not collected at the local level in Randolph County. Therefore, data from the Behavioral Risk Factor Surveillance System (BFRSS) was used. BRFSS conducts surveys on health-related risk behaviors, chronic health conditions and use of preventive services. BRFSS interviews are conducted monthly and data are analyzed annually (on a calendar-year basis).<sup>55</sup>

- Heavy Drinking
  - **5.9% of adults in Region 5** (Alamance, Caswell, Chatham, Durham, Guilford, Orange, Person, Randolph, and Rockingham counties) **reported heavy drinking.** To be classified as a heavy drinker, males have more than two drinks per day and females have more than one drink per day.<sup>69</sup>
- Binge Drinking

15.2% of adults in Region 5, reported binge drinking. Respondents to this survey question reported binge drinking in the past 30 days and had five or more drinks (males) and four or more drinks (females) on one or more occasions in the past month.<sup>69</sup>

### Youth Alcohol Use

The Youth Risk Behavior Surveillance System (YRBSS) is a survey conducted by the Centers for Disease Control and Prevention to monitor youth health behaviors in the United States. The survey collects data from the youth populations in grades 9-12. The 2021 YRBSS report with national data was released, but the full datasets for individual states have not been released. Therefore, the latest data available for North Carolina is limited to 2019 and prior years.

#### **High School**

• 24.2% of North Carolina high school students reported current alcohol consumption. The students answered "yes" to the following survey question "at least one drink of alcohol, on at least 1 day during the 30 days before the survey".<sup>68</sup>

#### Middle School

• **20.4% of North Carolina middle school students reported any alcohol consumption.** The students answered "yes" to the survey following question "ever drank alcohol other than a few sips". <sup>70</sup>

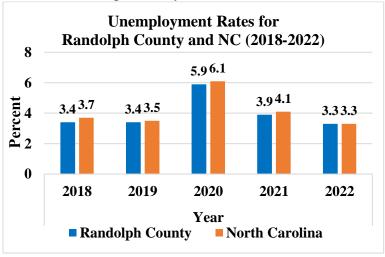
### **Economic**

According to a report published by the United States Census Bureau on income and poverty in the United States, 1 in 10 people live in poverty and many cannot afford healthy food, health care, and adequate housing.<sup>71</sup> Economic stability allows people to access important resources to maintain a healthy life. Factors that affect economic stability include employment that provides a living wage, food access, affordable housing, transportation, and financial resources.<sup>72</sup>

The COVID-19 pandemic impacted the economy in many ways. The United States Census Bureau's Household Pulse survey suggests that one year after COVID-19 was declared a pandemic, 42.7% of North Carolinians reported a loss of employment. Hispanic/Latinx and African Americans were the groups most disproportionately affected by this.<sup>73</sup>

The graph below reflects the county level unemployment rates.

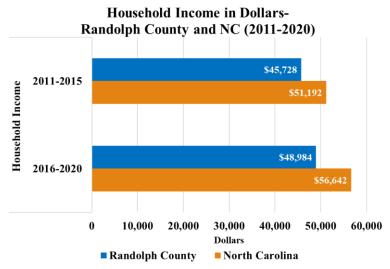
Graph 63: Unemployment Rates for Randolph County and NC (2018-2022)



Source: US Bureau of Labor Statistics

The graph below demonstrates average household income among Randolph County residents has not risen at the same rate as North Carolina households.

Graph 64: Household Income in Dollars-Randolph County and NC (2011-2020)



Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

The top two most common work industries in Randolph County as well as North Carolina are

- Management, business, science and arts, and
- Sales and office occupations.

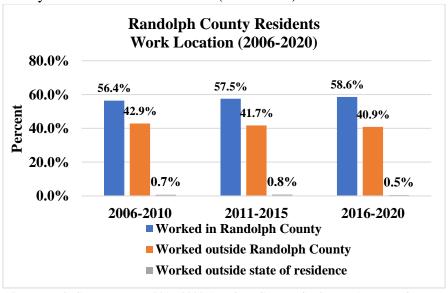
Table 26: Most Common Workforce Industries in Randolph County and North Carolina (2011-2020)

Most Common Industries	Randolph County 2016-2020	North Carolina 2016-2020	Randolph County 2011-2015	North Carolina 2011-2015
Management, Business, Science, and Arts	29.0%	38.9%	26.1%	36.2%
Production, Transportation, and Material Moving Occupations	23.8%	14.4%	24.4	13.3%
<b>Sales and Office Occupations</b>	21.3%	20.9%	24.3%	23.4%
Service Occupations	16.1%	16.8%	14.6%	17.7%
Natural Resource, Construction, and Maintenance Occupations	9.9%	9.0%	10.6%	9.4%

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Commuting to work is part of everyday life for many. The United States Census Bureau reports that the mean travel time to work in Randolph County between the years 2016-2020 was 23.8 minutes. The graph below shows that more than half of Randolph County residents from the years 2016-2020 worked inside the county and 40.9% of residents worked outside the county.

Graph 65: Randolph County Residents Work Location (2006-2020)



Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

## **Health Disparities and Health Equity**

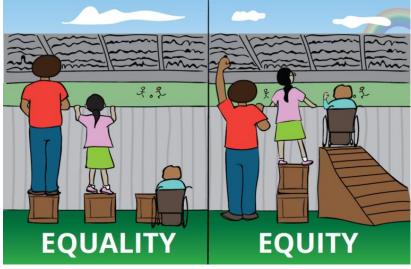
According to the Healthy NC 2030 report health disparities are "differences in health status and outcomes between groups based on characteristics like race, ethnicity, gender, geography, educational attainment, and income". A person's overall health is negatively impacted when they do not have equitable access to resources that will allow them to achieve optimal health.

Health equity and health equality are terms that may seem similar, but there are differences between them.

According to the United Way of the National Capital Area, these are the differences.

Health Equality	Health Equity
"Each individual or group of people is given the same resources and opportunities, regardless of their circumstances". <sup>74</sup>	"Meeting communities/people where they are and allocating resources and opportunities as needed to create equal outcomes for all community members/people". 74
<b>+</b>	

Figure 13: Health Equality vs. Health Equity



Source: Equity Tool.org

## **Disparity Ratios**

_	ity Ratio Ranking African A nic, Randolph County		
Rank	Indicator	Disparity Ratio	Lowest Rate
	Maternal Smoking During		
1	Pregnancy	6.61	Hispanic/Latinx
2	Cancer Mortality - All Sites	3.45	Hispanic/Latinx
	Maternal Pre-Pregnancy		Other Races, Non-
3	Obesity - BMI 30+	3.06	Hispanic
	Infant Not Breastfed at		
4	Discharge	3.06	Hispanic/Latinx
			Other Races, Non-
5	Mortality - All Causes	2.79	Hispanic
6	Diabetes Mortality	2.3	White, Non-Hispanic
			Other Races, Non-
7	Late or No Prenatal Care	2.17	Hispanic
8	Low Birthweight Births	1.87	Hispanic/Latinx
9	Teen Pregnancy (15-19 years)	1.67	White, Non-Hispanic
10	Stroke Mortality	1.44	White, Non-Hispanic
			Other Races, Non-
11	Gestational Diabetes	1.37	Hispanic
12	Heart Disease Mortality	1.23	White, Non-Hispanic
13	Preterm Births	1.11	Hispanic/Latinx
	Trachea, Bronchus, Lung		_
14	Cancer Mortality	1.07	White, Non-Hispanic
	Other Ischemic Heart Disease		African American, Non-
*	Mortality		Hispanic
	Maternal Pre-Pregnancy		African American, Non-
*	Overweight - BMI 25.0 - 29.9		Hispanic

### **Summary**

For African Americans, Non-Hispanic, disparities existed for 14 indicators. Disparities ranged from 1.07 (trachea, bronchus, lung cancer mortality) to the worst, 6.61 (maternal smoking during pregnancy). African Americans, Non-Hispanic had the lowest rates in other ischemic heart disease mortality and maternal pre-pregnancy overweight - BMI 25.0-29.9.

Disparity Ratio Category	Number of Indicators
5.0 and higher	1
2.0 to 4.9	6
1.5 to 1.99	2
1.0 to 1.49	5

Dispar	Disparity Ratio Ranking White, Non-Hispanic,		
Rando	lph County		
		Disparity	
Rank	Indicator	Ratio	Lowest Rate
	Maternal Smoking During		
1	Pregnancy	7.28	Hispanic/Latinx
2	Cancer Mortality - All Sites	3.07	Hispanic/Latinx
3	Mortality - All Causes	2.39	Other Races, Non-Hispanic
	Maternal Pre-Pregnancy		
4	Obesity - BMI 30+	2.26	Other Races, Non-Hispanic
	Infant Not Breastfed at		
5	Discharge	2.08	Hispanic/Latinx
6	Late or No Prenatal Care	1.6	Other Races, Non-Hispanic
7	Preterm Births	1.55	Hispanic/Latinx
8	Low Birthweight Births	1.18	Hispanic/Latinx
	Other Ischemic Heart Disease		African American, Non-
9	Mortality	1.08	Hispanic
	Maternal Pre-Pregnancy		African American, Non-
10	Overweight - BMI 25.0 - 29.9	1.08	Hispanic
11	Gestational Diabetes	1.03	Other Races, Non-Hispanic
*	Heart Disease Mortality		White, Non-Hispanic
*	Stroke Mortality		White, Non-Hispanic
	Trachea, Bronchus, Lung		
*	Cancer Mortality		White, Non-Hispanic
*	Diabetes Mortality		White, Non-Hispanic
*	Teen Pregnancy (15-19 years)		White, Non-Hispanic

For Whites, Non-Hispanic, disparities existed for 11 indicators. Disparities ranged from 1.03 (gestational diabetes) to the worst, 7.28 (maternal smoking during pregnancy).

Whites had the lowest rates for heart disease mortality; stroke mortality; trachea, bronchus, lung cancer mortality; diabetes mortality; and teen pregnancy.

Disparity Ratio Category	Number of Indicators
5.0 and higher	1
2.0 to 4.9	4
1.5 to 1.99	2
1.0 to 1.49	4

_	rity Ratio Ranking nic/Latinx, Randolph County		
Rank	Indicator	Disparity Ratio	Lowest Rate
	Maternal Pre-Pregnancy		
1	Obesity - BMI 30+	2.31	Other Races, Non-Hispanic
2	Late or No Prenatal Care	2.28	Other Races, Non-Hispanic
3	Gestational Diabetes	2.25	Other Races, Non-Hispanic
4	Teen Pregnancy (15-19 years)	1.84	White, Non-Hispanic
	Maternal Pre-Pregnancy		African American, Non-
5	Overweight - BMI 25.0 - 29.9	1.35	Hispanic
6	Mortality - All Causes	1.01	Other Races, Non-Hispanic
*	Cancer Mortality - All Sites		Hispanic/Latinx
*	Low Birthweight Births		Hispanic/Latinx
*	Preterm Births		Hispanic/Latinx
	Maternal Smoking During		
*	Pregnancy		Hispanic/Latinx
	Infant Not Breastfed at		
*	Discharge		Hispanic/Latinx

For Hispanic/Latinx, disparities existed for 4 indicators. Disparities ranged from 1.01 (mortality - all causes) to the worst, 2.31 (maternal pre-pregnancy obesity - BMI 30+). Hispanics/Latinx had the lowest rates for cancer mortality - all sites, low birthweight births, preterm births, maternal smoking during pregnancy, and infant not breastfed at discharge.

Disparity Ratio Category	Number of Indicators
5.0 and higher	0
2.0 to 4.9	3
1.5 to 1.99	1
1.0 to 1.49	2

_	Disparity Ratio Ranking Other Races, Non-		
Rank	nic, Randolph County  Indicator	Disparity Ratio	Lowest Rate
Kalik		Kauo	Lowest Rate
1	Maternal Smoking During Pregnancy	3.72	Hispanic/Latinx
	Infant Not Breastfed at		
2	Discharge	3.23	Hispanic/Latinx
3	Preterm Births	1.88	Hispanic/Latinx
	Maternal Pre-Pregnancy		African American, Non-
4	Overweight - BMI 25.0 - 29.9	1.62	Hispanic
5	Low Birthweight Births	1.18	Hispanic/Latinx
*	Mortality - All Causes		Other Races, Non-Hispanic
*	Late or No Prenatal Care		Other Races, Non-Hispanic
	Maternal Pre-Pregnancy		
*	Obesity - BMI 30+		Other Races, Non-Hispanic
*	Gestational Diabetes		Other Races, Non-Hispanic

For Other Races, Non-Hispanic, disparities existed for 4 indicators. Disparities ranged from 1.18 (low birthweight births) to the worst, 3.72 (maternal smoking during pregnancy).

Other Races, Non-Hispanic had the lowest rates for mortality - all causes, late or no prenatal care, maternal pre-pregnancy obesity - BMI 30+, and gestational diabetes.

Disparity Ratio Category	Number of Indicators
5.0 and higher	0
2.0 to 4.9	2
1.5 to 1.99	2
1.0 to 1.49	1

Dispar	Disparity Ratio Ranking Male, Randolph County				
•		Disparity			
Rank	Indicator	Ratio	Lowest Rate		
1	Suicide Mortality	3.43	Female		
	Unintentional Motor Vehicle Injury				
2	Mortality	2.71	Female		
	Other Ischemic Heart Disease				
3	Mortality	2.42	Female		
	Acute Myocardial Infarction				
4	Mortality	2.18	Female		
5	Diabetes Mortality	2.01	Female		
	Chronic Liver Disease/Cirrhosis				
6	Mortality	1.97	Female		
7	Heart Disease Mortality	1.68	Female		
	Trachea, Bronchus, Lung Cancer				
8	Mortality	1.61	Female		
9	Pancrease Cancer Mortality	1.59	Female		
	Other Unintentional Injuries				
10	Mortality	1.56	Female		
	Nephritis, Nephrosis, & Nephrotic				
11	Syndrome Mortality	1.44	Female		
12	Cancer Mortality - All Sites	1.38	Female		
13	Septicemia Mortality	1.36	Female		
14	Mortality - All Causes	1.35	Female		
	Colon, Rectum, Anus Cancer				
15	Mortality	1.34	Female		
	Chronic Lower Respiratory Disease				
16	Mortality	1.28	Female		
17	Pneumonia/Influenza Mortality	1.03	Female		
*	Stroke Mortality		Male		
*	Alzheimer's Disease Mortality		Male		

For Males, disparities existed for 17 indicators. Disparities ranged from 1.03 (pneumonia/influenza mortality) to the worst, 3.43 (suicide mortality). Males had the lowest rates in stroke mortality and Alzheimer's disease mortality.

Disparity Ratio Category	Number of Indicators
5.0 and higher	0
2.0 to 4.9	5
1.5 to 1.99	5
1.0 to 1.49	7

Rank	Indicator	Disparity Ratio	Lowest Rate
2	Alzheimer's Disease Mortality	1.39	Male
1	Stroke Mortality	1.26	Male
*	Suicide Mortality		
*	Unintentional Motor Vehicle Injury Mortality		
*	Other Ischemic Heart Disease Mortality		
*	Acute Myocardial Infarction Mortality		
*	Diabetes Mortality		
*	Chronic Liver Disease/Cirrhosis Mortality		
*	Heart Disease Mortality		
*	Trachea, Bronchus, Lung Cancer Mortality		
*	Pancrease Cancer Mortality		
*	Other Unintentional Injuries Mortality		
*	Nephritis, Nephrosis, & Nephrotic Syndrome Mortality		
*	Cancer Mortality - All Sites		
*	Septicemia Mortality		
*	Mortality - All Causes		
*	Colon, Rectum, Anus Cancer Mortality		
*	Chronic Lower Respiratory Disease		
*	Mortality  New York North New York New		
4	Pneumonia/Influenza Mortality		

For Females, disparities existed for 2 indicators. Disparities ranged from 1.26 (stroke mortality) to the worst, 1.39 (Alzheimer's disease mortality). Females had the lowest rates in 18 other indicators as reflected in the table.

Disparity Ratio Category	Number of Indicators
5.0 and higher	0
2.0 to 4.9	0
1.5 to 1.99	0
1.0 to 1.49	2

## **Health Care Access/Quality**

Health care coverage is very important as it allows each person to be able to live a healthy life by preventing diseases and improving quality of life. Due to costs, people without health insurance are less likely to go to the doctor and get the care they need.



When thinking about your health, what challenges do you face in getting care?

- "Access to affordable care and insurance"
- "Having to go out of Asheboro"

-- Community Opinion Survey Respondents

The table below shows that in the years 2016-2020, Randolph County residents have a higher percent of uninsured than North Carolina overall.

Table 27: Health Care Coverage in Randolph County and North Carolina (2011-2020)

Coverage	Randolph County 2016-2020	North Carolina 2016-2020	Randolph County 2011-2015	North Carolina 2011-2015
With Health Insurance Coverage	86.9%	89.3%	83.2%	85.6%
With Private Health Insurance	57.4%	67.5%	59.2%	64.7%
With Public Health Insurance	39.9%	34.6%	34.2%	32.6%
No Health Insurance	13.1%	10.7%	16.8%	14.4%

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

The Cecil G. Sheps Center for Health Services Research collects and maintains the North Carolina Health Professionals Data System. The table below reports data for selected active health professionals per 10,000 population ratios for physicians, primary care physicians, dentists, registered nurses, and pharmacists for Randolph County for the years 2015, 2018 and 2021.

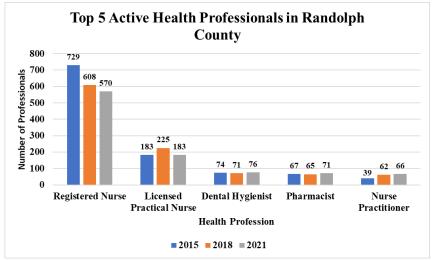
Table 28: List of Health Professionals in Randolph County from 2015, 2018, 2021

Active Health Professionals in Randolph County	2015	2018	2021
DENTAL			
Dentist	29	31	31
Dental Hygienist	74	71	76
Oral Surgeon	1	1	1
Pediatric Dentist	1	2	2
NURSING			
Certified Midwife	0	0	0
Licensed Practical Nurse	183	225	183
Nurse Practitioner	39	62	66
Registered Nurse	729	608	570
OTHER HEALTH			
PROFESSIONALS			
Chiropractor	17	14	13
Occupational Therapist	19	20	22
Occupational Therapy	14	12	15
Assistant			
Optometrist	9	10	8
Pharmacist	67	65	71
Physical Therapist	46	34	32
Physical Therapy Assistant	30	29	37
Podiatrist	0	0	0
Psychologist	2	3	5
Psychological Associate	7	4	4
PHYSICIANS			
Family Medicine	23	23	25
Generalists	60	62	61
Internal Medicine	13	12	10
Obstetrics/Gynecology	5	6	6
Pediatrician	9	8	10
Primary Care	50	49	51

Source: Cecil G. Sheps Health Workforce NC

According to the Cecil G. Sheps Center for Health Services Research, the top five active health professionals in Randolph County were registered nurses, licensed practical nurses, dental hygienists, pharmacists, and nurse practitioners, when considering 24 total health professions. Registered nurses experienced the most decline while nurse practitioners experienced the most growth.

Graph 66: Top 5 Active Health Professionals in Randolph County (2015-2021)



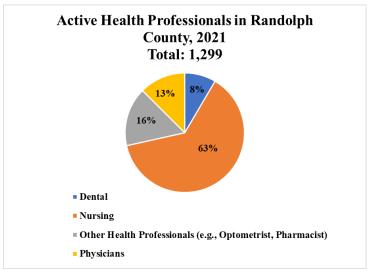
Source: Cecil G. Sheps Health Workforce NC

"Sometimes the provider list is, people are there, but they are not accepting new patients, or they are not accessible".

- Mental Health Focus Group Participant

In total, there were 819 nursing professionals, 207 other health professionals, 165 physicians, and 110 dental professionals in 2021. The pie chart below reports these numbers of active health professionals in percentages. Nursing professionals comprised over half of the total active health professional's workforce, followed by other health professionals, physicians, and dental professionals.

Graph 67: Active Health Professionals in Randolph County (2021)



Source: Cecil G. Sheps Health Workforce NC

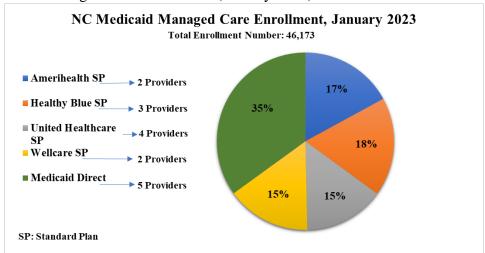


"I have insurance through work, but others have a hard time affording health insurance and therefore do not get the care they need"

-- Community Opinion Survey Respondent

As of January 2023, there were 46,173 people enrolled in Medicaid in Randolph County. Collectively, Medicaid standard plans account for 65% of all Medicaid enrollees and Medicaid direct enrollees account for 35%. According to the "find a doctor" search tool on NCDHHS website, Medicaid Direct offers 5 providers of the standard plans, United Healthcare offers 4 providers, Healthy Blue offers 3 providers, and Amerihealth and Wellcare offer 2 providers each. Among providers accepting Medicaid Standards Plans, 3 offer services in Spanish and 1 offers services in Hindi.

Graph 68: NC Medicaid Managed Care Enrollment (January 2023)



Source: NCDHHS NC Expanding Medicaid

### **Dental Care Access**

Randolph County's oral health data is available on a regional level. Randolph is incorporated within Region 5 which includes the counties of: Alamance, Caswell, Chatham, Durham, Guilford, Orange, Person, and Rockingham.<sup>75</sup>

Figure 14: NC BRFSS, Region 5, Oral Health Outcomes

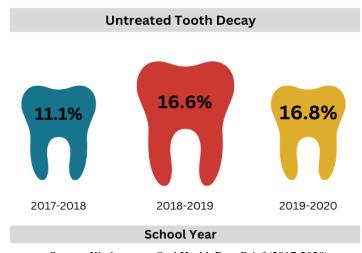


Source: North Carolina Oral Health Improvement Plan; Region 5: NC BRFSS 2018

According to the Centers for Disease Control and Prevention (CDC), tooth decay is the most common chronic condition of childhood. Poor dental health can have negative consequences on a child's quality of life, performance in school, and success later in life. The oral health of young children is of high importance in the NC Oral Health Section's Oral Surveillance Schedule. The Kindergarten Basic Screening Survey was created to collect oral health data in children. To

The figure below reports untreated tooth decay among kindergarteners in North Carolina between 2017-2020 in Region 5 which includes the counties of Alamance, Caswell, Chatham, Durham, Guilford, Orange, Person Randolph, Rockingham.

Figure 15: Percent of Children in Kindergarten with Untreated Tooth Decay in Region 5 (2017-2020)



Source: Kindergarten Oral Health Data Brief (2017-2020)

### **Leading Causes of Death**

The top 10 leading causes of death for Randolph County and North Carolina for the report period of 2016-2020 are shown in the chart below. Randolph County differs in five ranking categories to North Carolina. Not shown in the chart below, COVID-19 came in at 11<sup>th</sup> place for Randolph County and 12<sup>th</sup> in North Carolina as leading causes of death for report period 2016-2020.

To compare Randolph County's previous report period (2013-2017), mortality rates are shown in the middle white column along with green or red arrows. Green arrows indicate Randolph County rates decreased for that specific cause of death and red arrows indicate rates for that cause of death have increased.

Table 29: Leading Causes of Death in Randolph County and NC (2016-2020)

	Randolph		Previous	No	orth
	Cou	ınty-	Report	Car	olina-
	_	t Period	Comparison		t Period
	2016	5-2020	2013-2017	2016-2020	
Total Deaths- All Causes	918.7		872.9	793.7	
Leadings Causes of Death	Rank	Rate	Status	Rank	Rate
Diseases of the Heart	1	193.4	_	1	156.1
Cancer	2	176	_	2	154.6
All Other Unintentional Injuries	3	61.8	<u> </u>	3	43.2
Chronic Lower Respiratory Diseases	4	57.9	•	5	42.5
Cerebrovascular Disease	5	46	_	4	42.7
Alzheimer's Disease	6	43.6	_	6	37.4
Diabetes Mellitus	7	26.7	<u> </u>	7	24.5
Unintentional Motor Vehicle Injuries	8	21.9	<b>A</b>	10	15.1
Suicide	9	17.7	_	11	13.4
Nephritis, Nephrotic Syndrome, and Nephrosis	10	15.6	tatistics Leading Co	8	16.4

Source: NC State Center for Health Statistics- Leading Causes of Death \*Age-Adjusted Rate- expressed as deaths per 100,000

The table below identifies the leading causes of death by age group among Randolph County residents. For the ages 20-39, all other unintentional injuries is leading cause of death.

Table 30: Top 3 Causes of Death by Age Group in Randolph County, 2019

Age Group	Top 3 Causes of Death by Age, 2019
Ages 0 – 19	<ol> <li>Motor Vehicle Injuries</li> <li>Certain conditions originating in the perinatal period</li> <li>Congenital malformations, deformations, and chromosomal abnormalities</li> </ol>
Ages 20 – 39	<ol> <li>All other unintentional injuries</li> <li>Motor vehicle injuries</li> <li>Assault (homicide) AND Intentional self-harm (suicide)</li> </ol>
Ages 40 – 64	<ol> <li>Cancer</li> <li>Diseases of the heart</li> <li>All other unintentional injuries</li> </ol>
Ages 65 – 84	<ol> <li>Cancer</li> <li>Diseases of the heart</li> <li>Chronic lower respiratory diseases</li> </ol>
Ages 85+	<ol> <li>Diseases of the heart</li> <li>Cancer</li> <li>Alzheimer's disease</li> </ol>

Source: NC State Center for Health Statistics- Leading Causes of Death

# **SECONDARY DATA – Health Indicators**

Randolph County 2022 Summary Report								
	Health Indicator	Report Period	Randolph County	Randolph Previous Report Period Trend	North Carolina			
	Infant Mortality (<1 year) (rate per 1,000 live births)	2016-2020	9.9	•	7.0			
th <sup>78</sup>	Fetal Deaths (per 1,000 deliveries)	2016-2020	6.5	•	6.5			
Heal	<b>Neonatal Deaths</b> (<28 days) (per 1,000 live births)	2016-2020	6.2		4.7			
fant	<b>Post Neonatal Deaths</b> (28 days-1 year) (per 1,000 live births)	2016-2020	3.7	N/A	2.3			
& In	Live Births (rate per 1,000 population)	2016-2020	10.9	•	11.5			
Maternal, Child, & Infant Health <sup>78</sup>	<b>Low Birth Weight</b> (≤ 2500 g) (% of all live births)	2016-2020	9.1%	<b>A</b>	9.4%			
I, Ch	<b>Teen Pregnancy Rate</b> (15-17 years) (per 1,000 females)	2020	9.1	•	9.3			
erna	<b>Pregnancy Rate</b> (15-19 years) (per 1,000 females)	2019	23.7	•	24.0			
Mat	% Interval of <6 Months (between delivery & conception)	2016-2020	12.1%	•	13.0%			
	<b>Unmarried Mothers</b> (% of all live births)	2020	42.5%	•	41.9%			
<u> </u>	Heart Disease	2016-2020	193.4	_	156.1			
<b>tions<sup>79</sup></b> 000 population)	Cancers – All Sites	2016-2020	176.0	<b>A</b>	154.6			
ılaı	Trachea, Bronchus, & Lung	2016-2020	57.0		40.1			
79 Judo	Breast	2016-2020	21.0	_	20.1			
<b>itions<sup>79</sup></b> ) ),000 pop	Colon, Rectum, & Anus	2016-2020	11.6		12.9			
6.	Prostate	2016-2020	15.6		19.5			
<b>di</b> (ty) (00,	Cerebrovascular Disease (Stroke)	2016-2020	46.0		42.7			
<b>on</b> tali r 1	<b>Chronic Lower Respiratory Disease</b>	2016-2020	57.9		42.5			
C lori	Alzheimer's Disease	2016-2020	43.6		37.4			
<b>Chronic Condi</b> (Mortality) usted rate per 100	Pneumonia & Influenza	2016-2020	13.6		15.7			
<b>'61</b>	Diabetes Mellitus	2016-2020	26.7		24.5			
' <b>h</b> ı	Septicemia	2016-2020	13.2		12.5			
Chronic Condi (Mortality) (Age-adjusted rate per 100	Nephritis, Nephrotic Syndrome, & Nephrosis	2016-2020	15.6	•	16.4			
	Chronis Liver Disease & Cirrhosis	2016-2020	14.1		11.1			
<u> </u>	COVID-19*	2016-2020	15.0	N/A	12.8			
Injury <sup>79</sup> (Mortalit y) (Rate per 100,000)	Unintentional Motor Vehicle Injuries	2016-2020	21.9	<b>A</b>	15.1			
<b>jur</b> , 10rta (Ra per 90,00	All Other Unintentional Injuries	2016-2020	61.8		43.2			
<b>L</b> S S S S S S S S S S S S S S S S S S S	Suicide	2016-2020	17.7	STABLE	13.4			

	Homicide	2016-2020	4.9		7.3
<b>2</b>	Chlamydia	2021	380.9	_	617.1
es	Gonorrhea	2021	137.8		276.5
Communicable Diseases <sup>80</sup> (Rate per 100,000 population)	AIDS, Stage 3 (Newly Diagnosed Average Rates)	2021	1.6	•	5.7
micable Di te per 100, population)	HIV (Newly Diagnosed Average Rates)	2021	6.5	_	15.7
imunica (Rate po popu	Newly Diagnosed Early Syphilis Average Rate	2021	13.8	<b>A</b>	30.0
(R	Chronic Hepatitis B	2021	12.4		8.2
, O	Chronic Hepatitis C	2021	127.4		128.4
0	Tuberculosis <sup>81</sup>	2021	2.1		1.7
Health Care Provider <sup>82</sup>	Persons per Primary Care Physicians	2022	2080:1		1400:1
	Persons per Mental Health Providers	2022	940:1		360:1
Pr	Persons per Dentists	2022	2780:1		1710:1

STABLE = No change or <0.1 in measure since previous report period \*COVID-19 included in chart for comparison to other causes of mortality.

Health Indicator	Report Period	Randolph	Craven	Davidson	Johnston	Montgomery	North Carolina
Life Expectancy at Birth <sup>83</sup>	2018-2020	75.0	75.6	75.7	77.7	75.3	77.7
White	2018-2020	75.4	76.7	76.0	78.7	77.2	78.6
African American	2018-2020	72.0	72.1	74.4	76.1	70.6	75.0
Male	2018-2020	72.0	72.7	73.0	75.2	72.0	74.9
Female	2018-2020	78.0	78.7	78.6	80.2	78.9	80.4
Infant Mortality (per 1,000 live							
births) <sup>78</sup>	2021	8.0	13.8	5.0*	7.6	4.1*	6.8
White, Non-Hispanic	2021	9.8	7.5	4.8	4.7	9.9*	4.8
African American, Non-	2021	0.0*				8.0*	
Hispanic	2021	8.0*	13.3	8.0*	12.6	8.0**	12.6
Live Births (rate per 1,000	2016-2020	10.9	13.3	10.5	11.8	10.2	11.5
population) <sup>78</sup>	2010-2020	10.9	13.3	10.5	11.0	10.2	11.5
White, Non-Hispanic	2016-2020	9.6	12.4	9.6	10.4	8.7	9.7
African American, Non-	2016-2020	11.5	12.9	12.7	12.4	9.8	12.5
Hispanic							
Hispanic	2016-2020	18.6	18.9	16.9	17.6	16.6	18.9
<b>Teen Pregnancy Rate</b> (15-19 yrs,	2020	24.9	30.3	23.7	21.0	27.4	22.9
rate per 1,000) <sup>78</sup>							
White, Non-Hispanic	2020	19.4	25.9	17.9	13.1	*	13.7
African American, Non-	2020	*	42.3	40.3	34.8	*	33.9
Hispanic	2020	25.2	*	24.9		*	20.5
Hispanic	2020	35.3	Ψ	34.8	32.9	· *	39.5
% of Children on Free or Reduced		ACS					
Lunch <sup>84</sup>		45.1%					
Lunch	2022	RCSS	33.21%	27.82%	25.88%	39.75%	43.59%
		33.62%	33.2170				
% High School Graduate, 25 years							
& older <sup>85</sup>	2020	34.4%	25.8%	32.0%	27.7%	34.8%	25.5%
% Bachelor's Degree or Higher, 25							
years & older <sup>85</sup>	2020	16.1%	25.0%	18.9%	23.9%	16.3%	32.0%
% Uninsured, <65 years <sup>85</sup>	2016-2020	13.1%	10.4%	11.7%	11.9%	12.4%	20.8%
Unemployment Rate <sup>86</sup>	March 2022	3.3	3.4	3.2	3.1	3.4	3.3
Median Household Income <sup>85</sup>	2016-2020	\$48,984	\$53,894	\$50,454	\$61,806	\$45,147	\$56,642
% Below Poverty Level <sup>85</sup>	2020	14.6%	14.3%	15.2%	12.2%	16.9%	13.4%
% Language Other Than English <sup>85</sup>	2017-2021	12.5%	*	8.3%	13.6%	17.0%	12.1%
Age-Adjusted Death Rates (per 10			·	0.5%	13.0%	17.0%	12.1%
Heart Disease	2016-2020	193.4	169.2	168.9	169.7	172.2	156.1
Cancers – All Sites	2016-2020	176.0	175.6	176.2	160.6	155.6	154.6
Cerebrovascular Disease	2016-2020	46.0	37.1	46.0	43.9	40.1	42.7
Chronic Lower Respiratory							
Disease	2016-2020	57.9	47.6	59.8	43.4	50.0	42.5
Alzheimer's Disease	2016-2020	43.6	27.1	55.9	41.7	61.7	37.4
Suicide	2016-2020	17.7	15.2	17.4	12.1	16.0	13.4
All Other Unintentional Injury	2016-2020	61.8	64.0	55.3	38.1	35.4	43.2
Diabetes Mellitus	2016-2020	26.7	31.7	26.5	23.1	32.3	24.5
HIV/STD Surveillance Reports – I	Rates (per 100.	000 populatio	$(n)^{80}$				
Newly Diagnosed HIV	2019-2021	7.1	8.2	9.3	8.8	9.0	14.5
Newly Diagnosed AIDS	2019-2021	2.7	3.9	4.6	3.3	4.5	5.8
Newly Diagnosed Early Syphilis	2019-2021	7.4	11.2	15.3	13.1	14.1	24.3
Newly Diagnosed Chlamydia	2021	380.9	519.5	444.8	412.8	511.7	617.1
Newly Diagnosed Gonorrhea	2021	137.8	204.6	279.5	145.3	317.9	276.5
Access to Care Rates (per 10,000 p	opulation) <sup>87</sup>						

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Primary Care Physicians	2021	3.51	8.38	3.51	3.69	3.97	8.73
Registered Nurses	2021	39.2	103	44.1	44.7	39.7	99.3
Dentists	2021	2.41	5.55	2.05	2.03	1.44	5.35
Physician Assistants	2021	3.37	5.55	3.74	5.35	7.58	7.53

<sup>\*</sup>Numbers too small to be considered statistically significant; data unavailable

# **Healthy NC 2030 Report Card**

	2000 Repor	Social and Economic	Factors		
Health Indicator	Desired Result	Definition	Randolph County	North Carolina	Healthy NC 2030 Target
Individuals below 200% of federal poverty level	Decrease the number of people living in poverty	Percent of individuals with incomes at or below 200% of the federal poverty level	38.1% (2017-2021)	32.3% (2017-2021)	27%
Unemployment	Increase economic security	Percent of population aged 16 and older who are unemployed but seeking work	2.8% (2017-2021)	5.3% (2017-2021)	Reduce unemployment disparity ratio between white and other populations to 1.7 or lower
Short-term suspensions (per 10 students) <sup>88</sup>	Dismantle structural racism	Number of out-of-school short-term suspensions in educational facilities for all grades per 10 students	Asheboro City Schools  1.57 per 10 students (2021-22)  Randolph County School System  0.62 per 10 students (2021-2022)	1.47 per 10 students (2021-2022)	0.8 per 10 students
Incarceration rate (per 100,000) <sup>89</sup>		Incarceration in North Carolina prisons per 100,000 population	299.3 per 100,00 (2021)	282.5 per 100,000 (2021)	150 per 100,000 people
Adverse childhood experiences (ACEs) <sup>90</sup>	Improve child well-being	Percent of children who have experienced two or more adverse childhood experiences (ACEs)	Not available	17.8% (2020-2021)	18%
Third grade reading proficiency <sup>91</sup>	Improve third grade reading proficiency	Percent of children reading at a proficient level or above based on third grade End of Grade (EOG) exams; Proficiency defined as Level 3 or higher	Asheboro City Schools 29% (2021-2022) Randolph County School System 41% (2021-2022)	48% (2021-22)	80%

Physical Environment							
Health Indicator	Desired Result	Definition	Randolph County	North Carolina	Healthy NC 2030 Target		
Access to exercise opportunities <sup>82</sup>	Increase physical activity	Percent of the population living half a mile from a park in any area, one mile from a recreational center in a metropolitan area, or three miles from a recreational center in a rural area	50% (2022)	68% (2022)	92%		
Limited access to healthy food <sup>82</sup>	Improve access to healthy food	Percent of people who are low-income that are not in close proximity to a grocery store	10% (2022)	8% (2022)	5%		
Severe housing problems <sup>82</sup>	Improve housing quality	Percent of households with at least 1 of 4 severe housing problems: overcrowding, high housing costs, lack of kitchen facilities, lack of plumbing facilities	12% (2022)	15% (2022)	14%		

		Health Behaviors			
Health Indicator	Desired Result	Definition	Randolph County	North Carolina	Healthy NC 2030 Target
Drug overdose deaths (per 100,000) <sup>89</sup>	Decreased drug overdose deaths	Number of persons who die as a result of drug poisoning per 100,000 population (unintentional poisoning deaths / overdose deaths)	66.1 per 100,000 (2021)	38.5 per 100,000 (2021)	18 per 100,000
Tobacco use	Decrease tobacco use – youth <sup>92</sup>	Percentage of high school students reporting current use of any tobacco product	Not available	Middle School 10.4% (2019) High School 27.3% (2019)	9%
	Decrease tobacco use – adult <sup>93</sup>	Percentage of adults reporting current use of any tobacco product	17.1% (2021)	20.7%% (2021)	15%
Excessive drinking <sup>82</sup>	Decrease excessive drinking	Percent of adults reporting binge or heavy drinking	18% (2022)	17% (2022)	12%
Sugar- sweetened beverage consumption	Reduce overweight and obesity – youth	Percent of youth reporting consumption of one or more sugar-sweetened beverages per day	Not available	Not available	17%
	Reduce overweight and obesity – adult <sup>78</sup>	Percent of adults reporting consumption of one or more sugar-sweetened beverages per day	29.4% (2021; Region 5)	29.8% (2021)	20%

HIV diagnosis (per 100,000 population) <sup>80</sup>	Improve sexual	Number of <u>new</u> HIV diagnoses per 100,000 population	7.1 per 100,000 (2019-2021)	14.5 per 100,000 (2019-2021)	6 per 100,000
Teen birth rate <sup>78</sup>	health	Number of births to girls aged 15-19 per 1,000 population	27.3 per 1,000 (2016-2020)	25.1 per 1,000 (2016-2020)	10 per 1,000

	Clinical Care										
Health Indicator	Desired Result	Definition	Randolph County	North Carolina	Healthy NC 2030 Result						
Uninsured	Decrease the uninsured population	Population under 65 without insurance	12.3% (2017-2021)								
Primary care clinicians  (counties at or below 1:1500 providers to population)	Increase the primary care workforce	Primary care workforce as a ration of the number of full-time equivalent primary care clinicians to county population (primary care provider to population ration)	1:2080 1:1400		25% decrease for counties above 1:1500 to population						
Early prenatal care	Improve birth outcomes	Percentage of women who receive pregnancy-related health care services during the <b>first trimester</b> of pregnancy	78.1% (2021)	73.8% (2021)	80%						
Suicide rate (per 100,000 population)	Improve access and treatment for mental health needs	Age-adjusted number of deaths attributable to self-harm per 100,000 population (suicide rate)	20.7 per 100,00 (2016-2020)	15.6 per 100,000 (2016-2020)	11.1 per 100,000						

		Health Outcomes				
Health Indicator	Desired Result	Definition	Randolph County	North Carolina	Healthy NC 2030 Target	
Infant mortality (per 1,000 live births)	Decrease infant mortality	Rate of infant deaths per 1,000 live births	9.0 per 1,000 live births	6.9 per 1,000 live births	6 per 1,000 live births	
	Decrease infant mortality disparity ratio between non- Hispanic white and non-Hispanic African-Americans	Disparity ratio between white, non-Hispanic and African American, non-Hispanic deaths	1.44 (2016-2020)	2.59 (2016-2020)	1.5	
Life expectancy (years)	Increase life expectancy	Average number of additional years that someone at a given age would be expected to live if he/he were to experience throughout life the agespecific death rates observed in a specified reference period	75 years (2018-2020)	77.7 years (2018-2020)	82 years	

# Randolph County Residents Population Health Data by Race and Ethnicity or Gender

Tunuoipii Coun	Total	Wh	ite, Non- ispanic	African-American, Non-Hispanic		n, Ameri	ican Indian, -Hispanic	, Other	Other Races, Non- Hispanic		nic/Latinx	Male	Female
Mortality Rates, 2016- 2020	Rate	Rate	Disparity Ratio	F .	Dispari Ratio	ty Rate	Disparity Ratio		Disparity Ratio	Rate	Disparity Ratio	Rate	Rate
Total Deaths, All Causes	918.7	939.1	2.39	1094.9	2.79	818.7	2.09	392.2	-	396.4	1.01	1065.5	790.5
Heart Disease	193.4	196.7	-	242.3	1.23	N/A	N/A	N/A	N/A	N/A	N/A	248.6	147.7
<ul> <li>Acute Myocardial Infarction</li> </ul>	24.2	25.2	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.2	15.7
- Other Ischemic Heart Disease	73.7	76.8	1.08	71.1	-	N/A	N/A	N/A	N/A	N/A	N/A	109.2	45.2
Cerebrovascular Disease (stroke)	46.0	45.0	-	65.0	1.44	N/A	N/A	N/A	N/A	N/A	N/A	39.2	49.5
<b>Total Cancer</b>	176.0	178.9	3.07	200.7	3.45	N/A	N/A	N/A	N/A	58.2	0.33	209.4	151.3
- Colon, Rectum, & Anus	11.6	11.6	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.7	10.2
- Pancreas	10.2	10.1	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.9	8.1
- Trachea, Bronchus, & Lung	57.0	58.8	-	62.9	1.07	N/A	N/A	N/A	N/A	N/A	N/A	72.6	45.0
- Breast	21.0	20.9	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.0
- Prostate	15.6	15.0	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15.6	N/A
Diabetes	26.7	25.7	-	59.0	2.30	N/A	N/A	N/A	N/A	N/A	N/A	36.9	18.4
Pneumonia/Influenza	13.6	13.6	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.7	13.3
Chronic Lower Respiratory Diseases	57.9	60.7	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67.0	52.3
Septicemia	13.2	13.0	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15.4	11.3
Chronic Liver Disease/Cirrhosis	14.1	15.4	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.9	9.6
Nephritis, Nephrosis, & Nephrotic Syndrome	15.6	14.6	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.1	13.3
Alzheimer's Disease	43.6	44.6	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.5	49.2
Unintentional Motor Vehicle Injury	21.9	21.7	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.3	11.9
Other Unintentional Injuries	61.8	70.8	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	75.1	48.2
Suicide	17.7	20.2	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27.8	8.1
Homicide	4.9	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.1	N/A
Maternal/Child Indicators		Total	White, Hispa		African- America n, Non- Hispanic	American	Indian, Noi	n-Hispanic		aces, Non- panic	Hispanio	c/Latinx	
			%/Rate	%/Rate	Disparit y Ratio	%/Rate	Disparit y Ratio	%/Rate	Disparity Ratio	%/Rate	Disparit y Ratio	%/Rate	Disparity Ratio

Infant Mortality Rate (<1 year of age) (per 1,000 live births), 2016-2020 <sup>78</sup>	9.9	10.2	-	*	N/A	N/A	N/A	*	N/A	*	N/A
Low Birthweight (<2500 grams) (%), 2016-2020 <sup>78</sup>	9.1%	9.0%	1.18	14.2%	1.87	N/A	N/A	9.0%	1.18	7.6%	-
Preterm Births, <37 weeks gestation (%), 2020 <sup>78</sup>	11.7%	12.9%	1.55	9.2%	1.11	N/A	N/A	15.6%	1.88	8.3%	-
Late or No Prenatal Care (%) <sup>^</sup> , 2020 <sup>78</sup>	15.7%	14.2%	1.60	19.3%	2.17	N/A	N/A	8.9%	-	20.3%	2.28
Maternal Smoking During Pregnancy (%), 2020 <sup>78</sup>	10.5%	13.1%	7.28	11.9%	6.61	N/A	N/A	6.7%	3.72	1.8%	-
Maternal Pre-Pregnancy BMI 30+ - Obesity (%), 2020 <sup>78</sup>	35.7%	35.2%	2.26	47.7%	3.06	N/A	N/A	15.6%	-	36.0%	2.31
Maternal Pre-Pregnancy BMI 25.0-29.9 - Overweight (%), 2020 <sup>78</sup>	25.3%	23.8%	1.08	22.0%	-	N/A	N/A	35.6%	1.62	29.8%	1.35
Gestational Diabetes (%), 2020 <sup>78</sup>	8.7%	6.9%	1.03	9.2%	1.37	N/A	N/A	6.7%	-	15.1%	2.25
Infant Not Breastfed at Discharge (%), 2020 <sup>78</sup>	22.8%	24.3%	2.08	35.8%	3.06	N/A	N/A	37.8%	3.23	11.7%	-
Teen Pregnancy Rate, 15-19 years (per 1,000), 2016-2020 <sup>78</sup>	27.3	22.5	-	37.5	1.67	N/A	N/A	*	N/A	41.4	1.84

<sup>\*</sup>Numbers too small to be considered statistically significant or representative of population.

^According to the Kotelchuck Adequacy of Prenatal Care Utilization Index, inadequate prenatal care is defined as initiating care in the 5<sup>th</sup> month or later or no prenatal care reported on birth certificate.

#### **APPENDICES**

### **Appendix A: Community Needs Assessment Tools**

- Community Opinion Survey
- Key Informant Survey
- Mental Health Focus Group Guide

### **Appendix B: Primary Data Findings**

• Primary Data Findings

#### **Appendix C: Secondary Results**

• Peer County Comparison Data

### **Appendix D: Community Resource**

• Community Resource Guide- 211 United Way Resource Flyer

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